ARCHITECTURE DEPARTMENT CHINESE UNIVERSITY OF HONG KONG

MASTER OF ARCHITECTURE PROGRAMME 2003-2004 DESIGN REPORT

# URBAN RELIEF – A GREENERY JOURNEY IN MONG KOK, RECONNECT THE KCR STATION AND THE CITY

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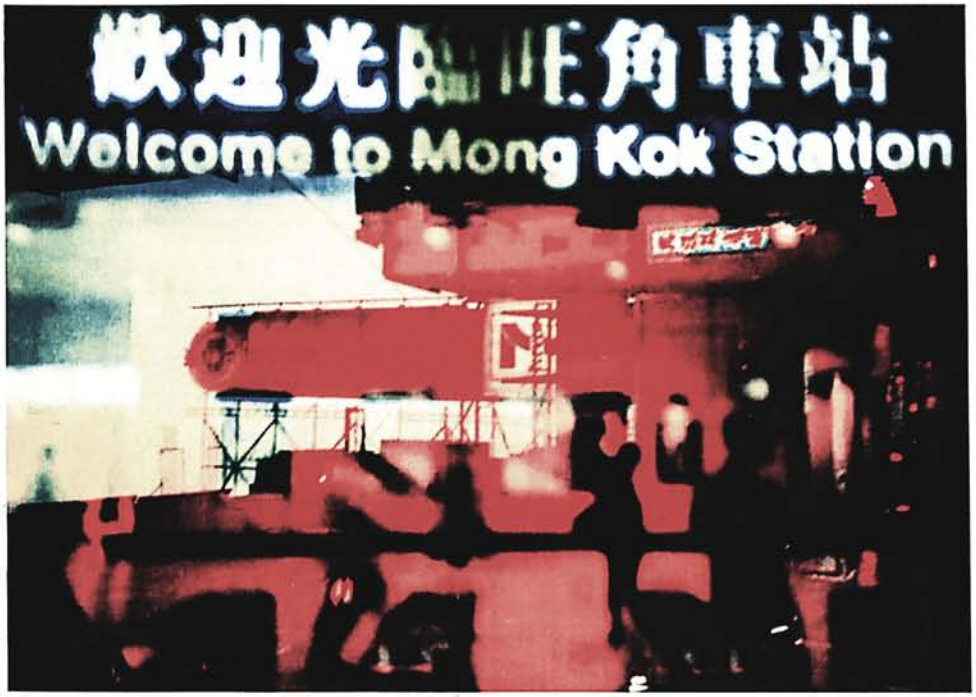
ARCHITECTURE I CUHK I 2003-2004

# FINAL THESIS REPORT
# PART A

student: chan chi chung I instructor: yuet tsang-chi




urban relief -
a greenery journey in mong kok
(re-connect the station and the city fabric)

thesis topic

## content

final thesis proposal

indicated a field for investigation
with articulating a framework for the creation of form within that field

- Jonathan Ochshorn, Comments on Undergraduate Thesis Proposal

## 0.1 genesis

### trend

Due to the rapid development in Hong Kong, as well as the government incorporated the sustainable concept in formulating the Second Railway Development Strategy 2000, the railway network would be the backbone of Hong Kong's transport system and it will increase from 31% at present to 43% by 2016.[1]

1. Railway and property planning - a marriage of convenience, Alfred Yeung

Railway system becomes essential to Hong Kong's continued economic, social and land development and will be given priority in government's plan for infrastructure development. Thus, the railway system becomes essential infrastructure in our daily life and it is going to be a part of urban architecture and cityscape.

### present phenomenon

From the KCRC's article, ".....There is therefore no reason to believe property development along the railway.....Market demand for developments around transport nodes then contributed to the concentration of high-density residential developments in the vicinity of railway stations.....the whole affair could easily be seen as a "marriage of convenience" between the two, even at this advanced stage of development."[2]

2. Railway and Property Planning - a marriage of convenience Alfred Yueng

With the perspective of the local developers, the role of the railway station in Hong Kong is now dominated by the real estate development and the character of transport machine.

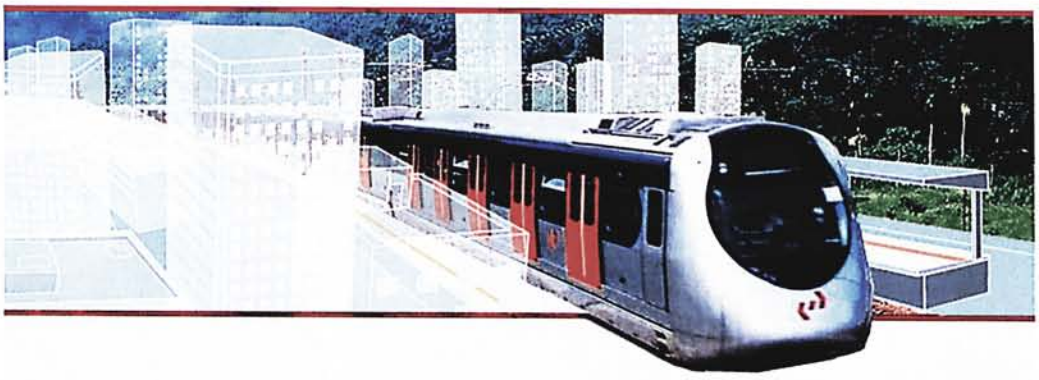


photo (left)
further KCRC railway system in Hong Kong
http://www.kcrc.com

0.1

## genesis

### exploration

According to Edwards Brian, stations can help to shape the community and define the cities. They should serve by their social, cultural and functional interactions.[1]

1. The Modern Station - new approach to railway station Brian Edwards

Thus, with this perspective of urbanization, the present economic and engineering approach would limit the development of this urban facility with the existing fabric of the city and the human communities.

As a result, a dull and boring traveling experience from the station to the city is created. The traveling sensation in the city is gradually replaced by the transit experience. A kind of city emptiness is created when traveling from the station to the city. Thus, the station just acts as a machine to monitor the commuter flow in the city.

Are there any alternatives to perceive the relationship between the station and the city which developing with the context of the city?

Is there any opportunities to improve this situation and provide a pleasure journey when walk through the city?


photos (left) existing and constructing stations in Hong Kong

## 0.2 premise

As an urban facility and a catalyst building in the city, station should be a node of network which providing linkage to
1) the railway system and
2) the surrounding area/ city context.[1]

At the same time, it is a place in the city where incorporating with a diversified collection of buildings and urban spaces, together with the activities they host.[1]

While the community is formed by the urban activities, the city is then continuous in movement and urban life, the station cannot stand alone in the city. Thus, an appropriate integration should be provided. However, both the practice and the theory of railway station development demonstrate inadequate understanding of the above ambivalent nature of the location, as well as the interactions between them. Consequently, the opportunities of being a mass gathering place in the community would be neglected.

In order to shed light on the unique challenges associated with the station area, an integrated node-place perspective is used in this thesis.[1] And this complex node-place interaction forms the core issues of the railway station development.

1. refer to "Part B, theoretical position"

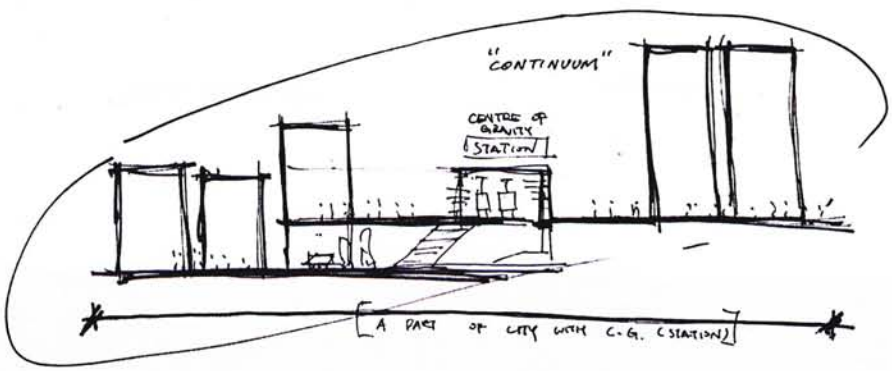



diagram (left)
statoin as a part of city

## 0.3 thematic issue

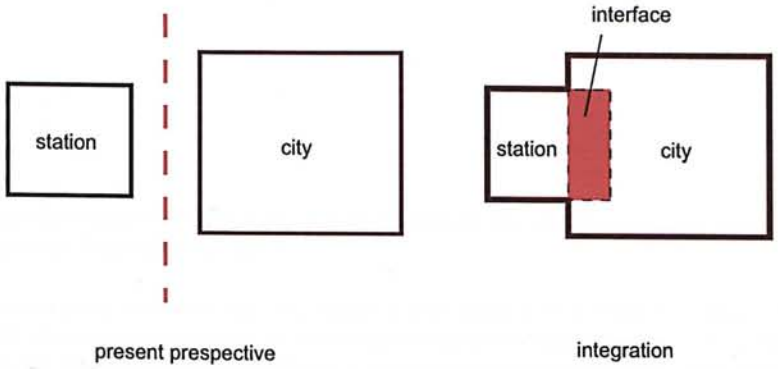
With this integrated node-place perspective, integration of the station and the dense urban city form the thematic issue of the thesis.

1. refer to "study area" and "research"

In this thesis, a part of Mong Kok, with a separated mass source (Mong Kok railway station)[1] is chosen as a demonstration. With the intention to integrate the station into the city, a new kind of urban space (an interface) would be explored through the design testing according to the specific contextual issue to reconnect the city network.

As a result, the station would be a part of city, which can benefit each other.

diagrams (left)
interface to reconnect




existing mong kok station

0.4

## study area introduction

0.4.1

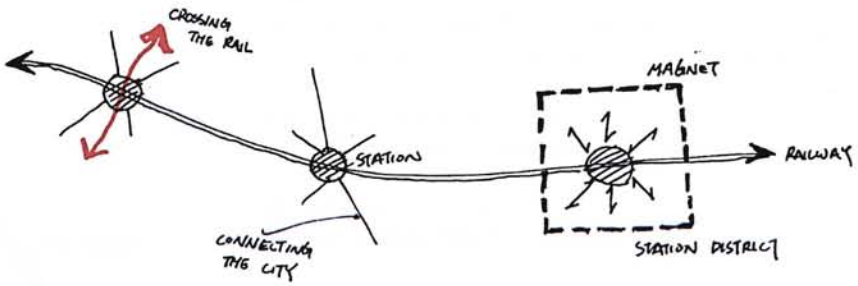



diagram of railway system

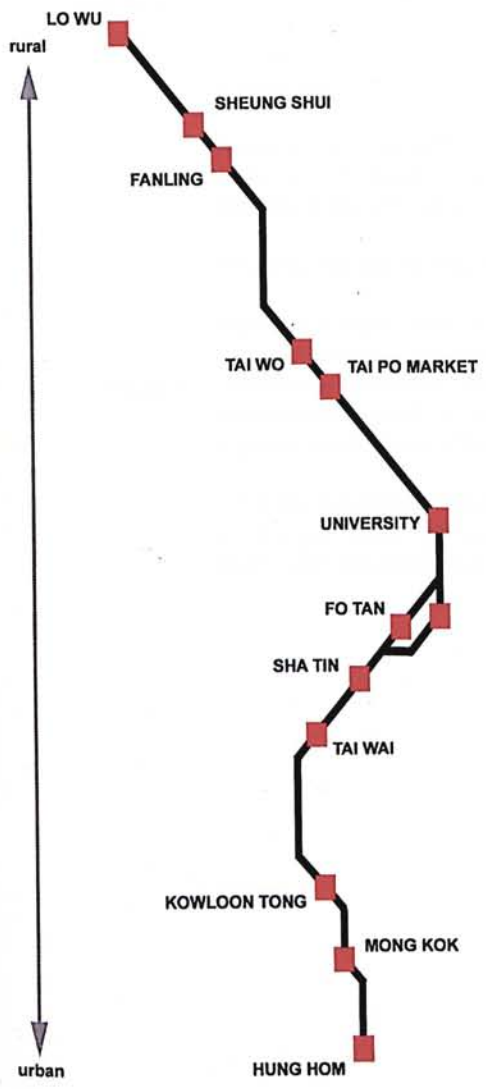
With the rapid development in Hong Kong, how to incorporate the railway system in a very dense urban city becomes the main challenge urbanization.

If station is a part of city, while in Hong Kong, station is then a part of very dense city. It should be a continuum of the city, it is also a mass gathering place, which like a magnet converging people. The movements of people and vehicles are extremely busy. It would give a great impact of the surrounding urban fabric. At the smae time, series of problems would be raised.

The relationship between the stations and the surrounding urban fabric (station district) become more complex and chaotic in the dense city. It provides a urban challenge of architecture. They perform a variety of functions, besides giving access to trains: they are shopping mall, meeting places and urban landmarks.

Thus, the study area of the thesis I would like to study is:
a part of city which having a railway station (mass transit source) in the context.

Having investigated the study area, I would like to learn how to deal with a mass transportation in the dense urban city, and the issue rose within as well as the possibility to use transportation as a mean of city generator.




kcrc east line

In order to help myself to choose the site for further study, the characteristics of each KCRC stations and their surrounding areas would be abstractly investigated.

Lo Wu
terminus / interface between urban area (shenzhen) and rural area (Hong Kong) / interchange of two countries (cultural) / mutli-track

Sheung Shui , Fan Ling , Tai Wo
new town development / public housing domain

Tai Po Market
old urban context / memory / historical

University
free standing station / rural area / campus area

Fo Tai
private housing / industrial area / depot / mutli-track

Shatin
new town development / shopping center / city center / mutli-track

Tai Wai
free standing station / isolated / further extension

Kowloon Tong
mass transportation interchange / small-scale residential development / crowded / busy

Mong Kok
urban area / street domain identity of Mong Kok / commercial / busy / 24 hrs urban life / movement / dynamic

Hung Hom
terminus / destination and departure of travel / facing harbour / different activities zones surrounded (commercial, academic, residential, and recreation) / complexity / transportation encounter / new station

**introduction**

Along the railway, two sites in the urban fabric were chosen for explorations.

1. Mong Kok
2. Hung Hom

They both are in the tight urban fabric. However, their connectivity between the stations and the surrounding urban fabric is inappropriate. They both are city magnet converging people and transferring commuters to other place. Many forces intersect together to create complexity of the place and affecting the urban fabric.

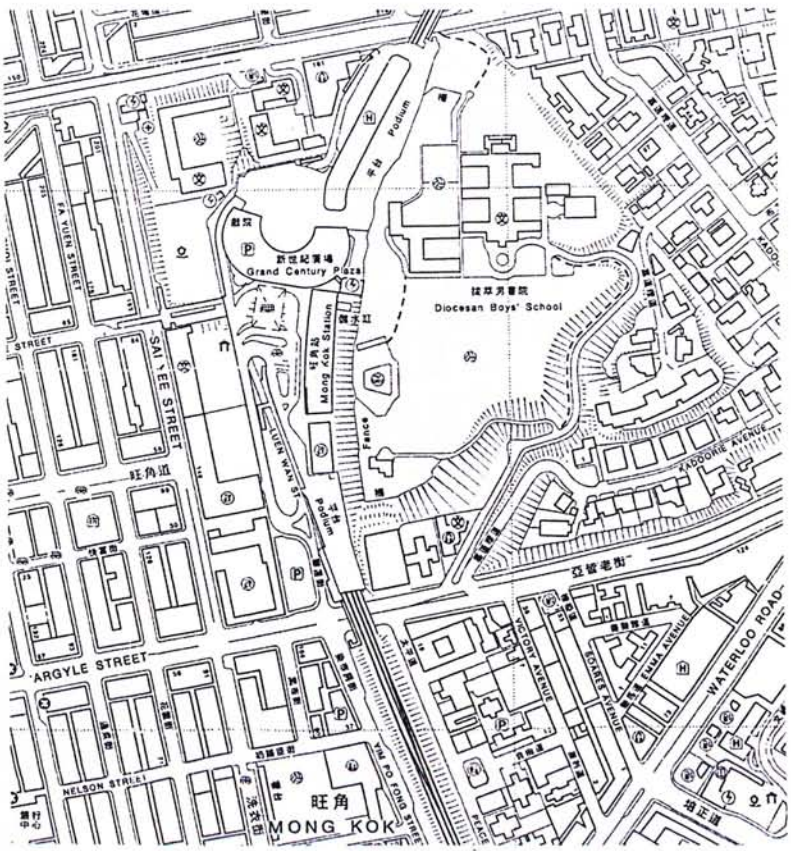
Thus, they are appropriated for investigating the influences of station on a dense urban area.

According to Kevin Lynch, "there seems to be a public image of any given city which is the overlap of many individual images.....the contents of the city images so far studied , which are referable to physical forms, can conveniently be classied into five types of elements: paths, edges, districits, nodes and landmakrs."[1] Thus, the site analysis would be conducted by these five elements and a photo survey. This analysis would provide a general public image of the two cities.

1. The Image of the City Kevin Lynch

In the process of sites analysis, the gifts are not only finding the site but also providing insight for the direction of the thesis. Though the two places are very different from one another, they share some kind of similiarities and through the deviation of the differences, the program came out subtly.

**mong kok - brief**




mong kok 1:5000

Mong Kok is a high population old district. This is a highly dense place and well articulated place. This place is very energetic with many activities happen. Ho Man Tin is comparatively new and low dense. The street pattern in Mong Kok is a grid, and Ho Man Tin is more organic.

The feature of Mong Kok are street activities. In the new towns, retail activties held in commercial centers and place are connected with elevated walkways and those walkways are only used for circulation purpose and no activities happen there. Mong Kok is different, here street is the most active place, it is created by the way people use it.

Another feature is the traffic network. Roads occupy about 40% landuse in the district. In this small district, it serves by two mass transport rail systems KCRC and MTR. The location of the KCR is in the eastern boundary, the MTR in the middle and the Tai Kok Tsui station is located in western boundary.

**mong kok - building mass**

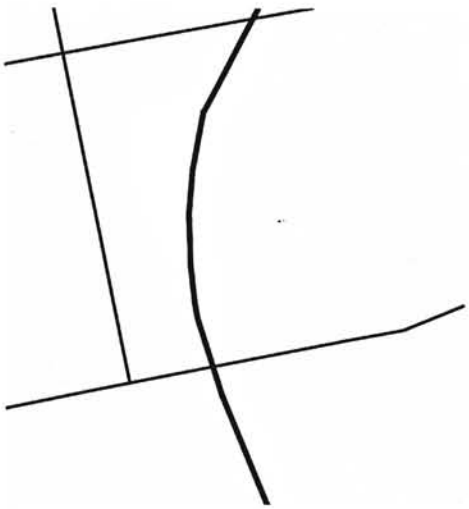
- rectangular massing blocks in Mong Kok
- residential towers in Ho Man Tin
- a massive shopping mall next to station

**mong kok - paths**

- regular streets in Mong Kok
- organic in Ho Man TIn
- observe city / urban life through street

**mong kok - edges**

- railway becomes the primary edges
- main streets are secondary edges

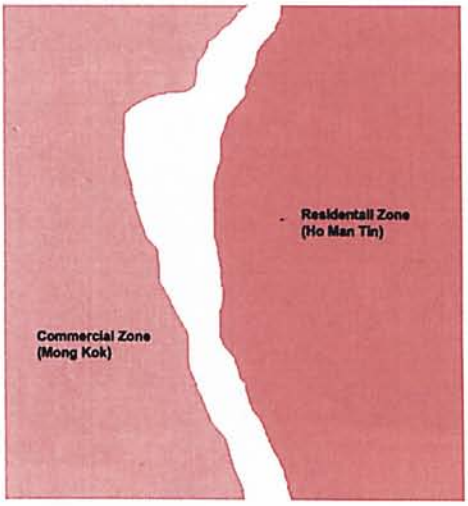


**mong kok - nodes**

- Mong Kok Station
- people force to move in the stree
- no square / publi space for people stay

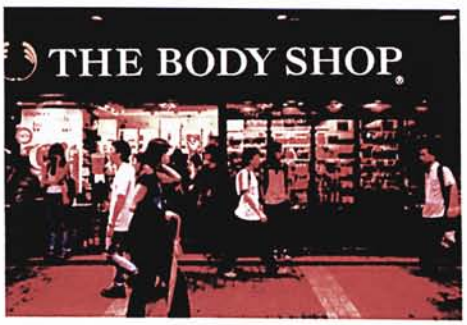
**mong kok - districts**

- Mong Kok (dense commercial)
- Ho Man Tin (low dense residential)




**mong kok - landmarks**

- no landmark
- popular shops
(e.g. body shop) become checkpoints

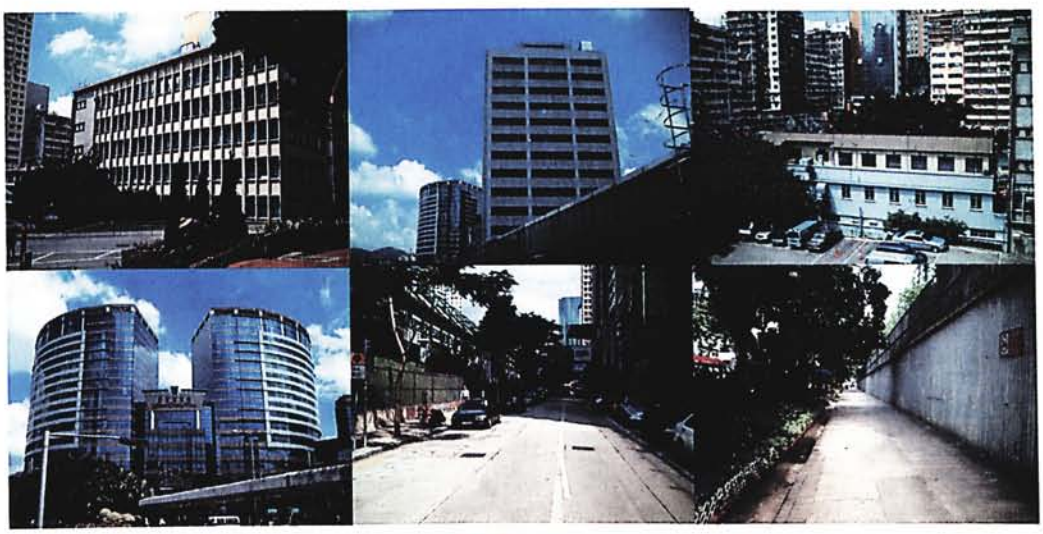


## mong kok - photo survey

Most of the podium area are used for traffic, this is not for people stay and walk.
Transportation are immediately next to the small station entrance.
People waiting at the entrance and temporary commerical activities happen.

A space in-be tween the railway complex and school complex is mainly used for traffic road, small landing island is provided for crossing.

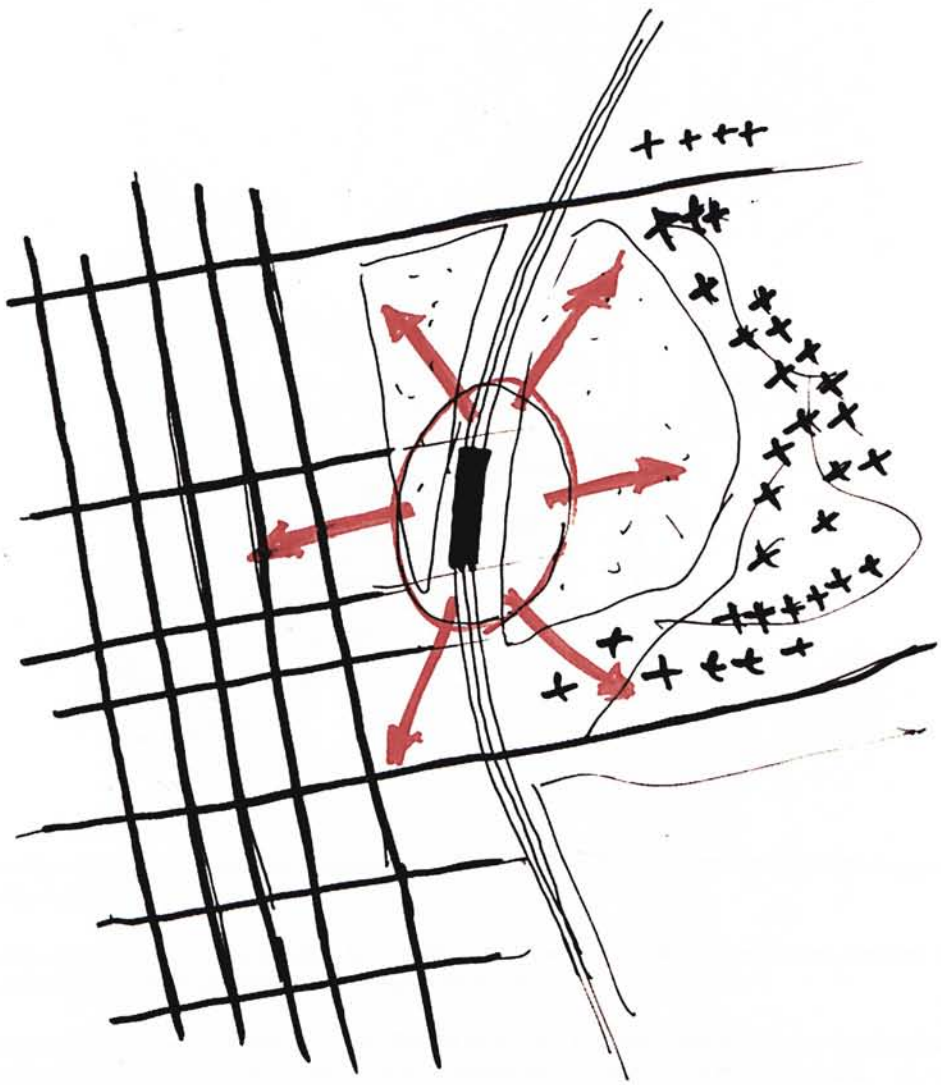
mong kok - photo survey



The station complex are mainly surrounded by traffic roads.
A massive shopping centre and government buildings are built on the station podium.

The footbridge network is used to link up the station, shopping centre and the urban city.
They mainly used for circulation purpose only. The environment is not supposed for staying.

mong kok - site sketch



mong kok urban fabric sketch

**hung hom - brief**

hung hom 1:5000

The station located in the boundary between Hung Hom and Tsim Sha Tsui. And it is a concrete island which surrounded by traffic road.

It is the western terminal of KCRC. And the old station was redeveloped by Norman Foster. The new station becomes a place where giving an image of city to the travellers.

The feature of this station district is variety. The harbour is the significant elements in the district. However, there is no connection between the station and the waterfront. It is boarded by the traffic roads

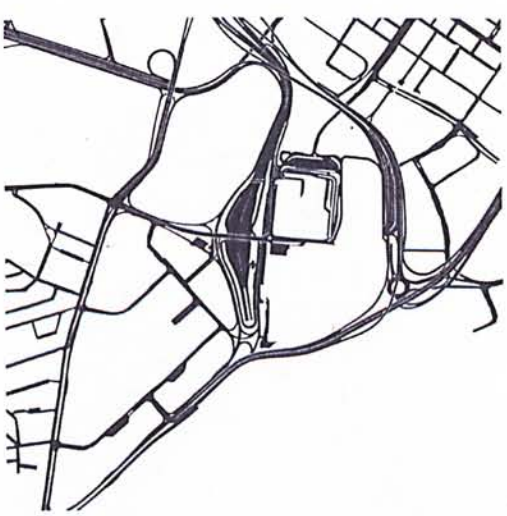
Commercial, academic and residential activities are also the components. They are mainly linked up by the footbridge network and they are only used for circulation purpose and no activities happen there.

**hung hom - building mass**

- buildings group together to form clusters
- large scale

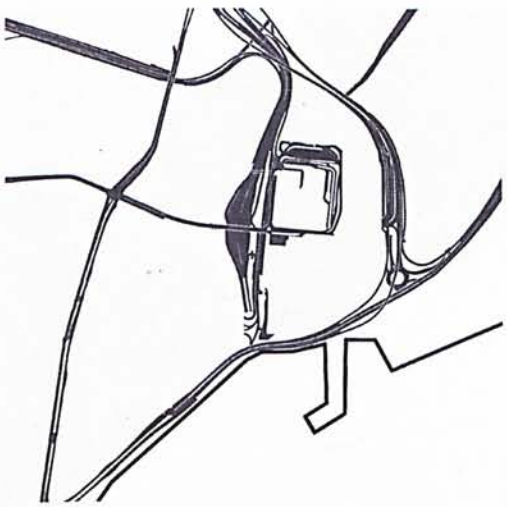
**hung hom - paths**

- flyover surround
- corridor along waterfront allow pedestrians



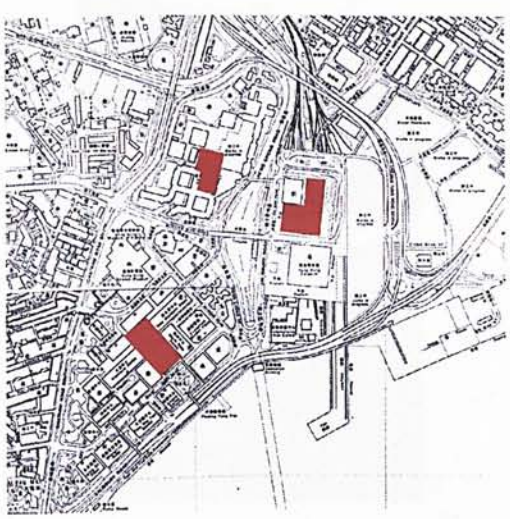
**hung hom - edges**

- waterfront
- flyover become boundarys

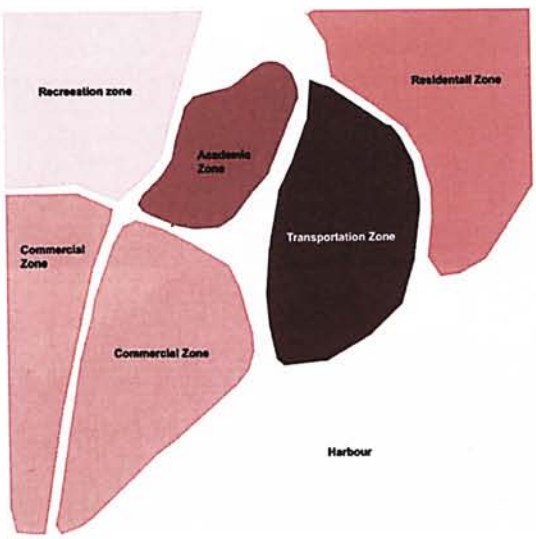


**hung hom - nodes**

- station is the main
- open space / square in the district
- node in each distric



**hung hom - districts** - variety of zoning around station




**hung hom - landmarks** - Poly University, Hung Hom Gymnasium
- but not the railway terminal

**hung hom - photo survey**

Most of the podium area are used for traffic, this is not for people stay and walk. And the station is mainly surrounded by transportation.

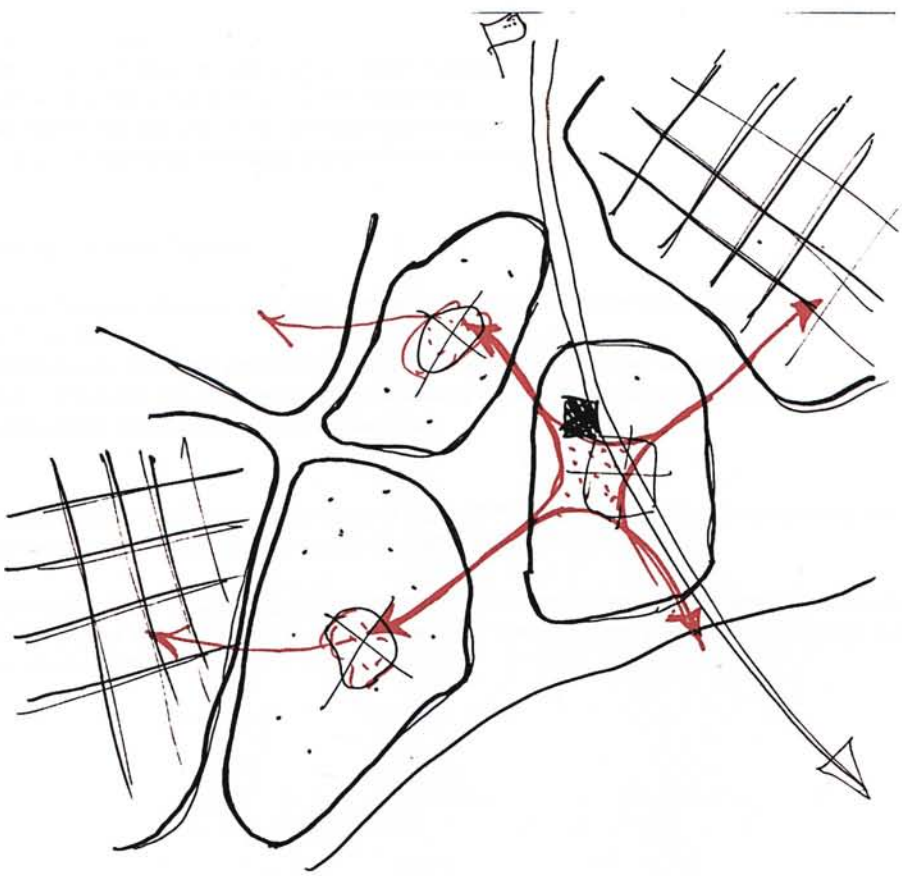
The enclosed corridor is directly linked to the station entrance. People usually walk along the corridor to get out the station complex.

**hung hom - photo survey**

The footbridge network is used to link up the station and the urban city. They mainly used for circulation purpose only. The environment is not supposed for staying.

Extremely complex traffic roads (flyovers and rail tracks) surround the station island. It then limits the accessiblity of the station.

hung hom - site sketch



hung hom urban fabric sketch

After investigating two sites, Mong Kok is selected for the thesis. The followings are the reasons:

City (Mong Kok)

- very rich urban context
- a highly compacted urban city with a strong urban structures
- characteristics of Mong Kok itself are unique and strong
- a transportation hub with lots of transportation interchanges
- a commercial domain area with large amount of mass moiblity

Station (Mong Kok KCRC Station)

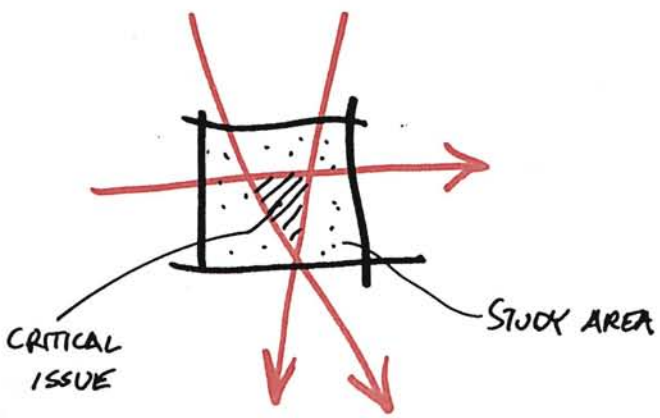
- the construction of an elevated footbridge, it reveals the problem and the necessary of the connectivity
- remote to the city
- the footbridge only transit the people to the city with no activities and urban experience
- limitation of the space and the access barrier created by the school district and traffic road
- the railway station is disconnected to the urban fabric

Moreover, according to the Final Report of Stage II Study On Review of Metroplan, centres at Mong Kok commercial areas should be improved on the pedestrian environment to the station.[1]

Thus, in Mong Kok, there is a great tendency for the station and the city becomes continue, however, the station is now neglected and disconnect to the city. Obviously, there is a great potential and challenge in Mong Kok that I would like to explore.

1. Stage II Study On Review of Metroplan and The Related Kowloon Density Study Review, Final Report – feb 2003 Panning Department in Hong Kong

diagram of study framework




1. refer to "Part B, theoretical position"

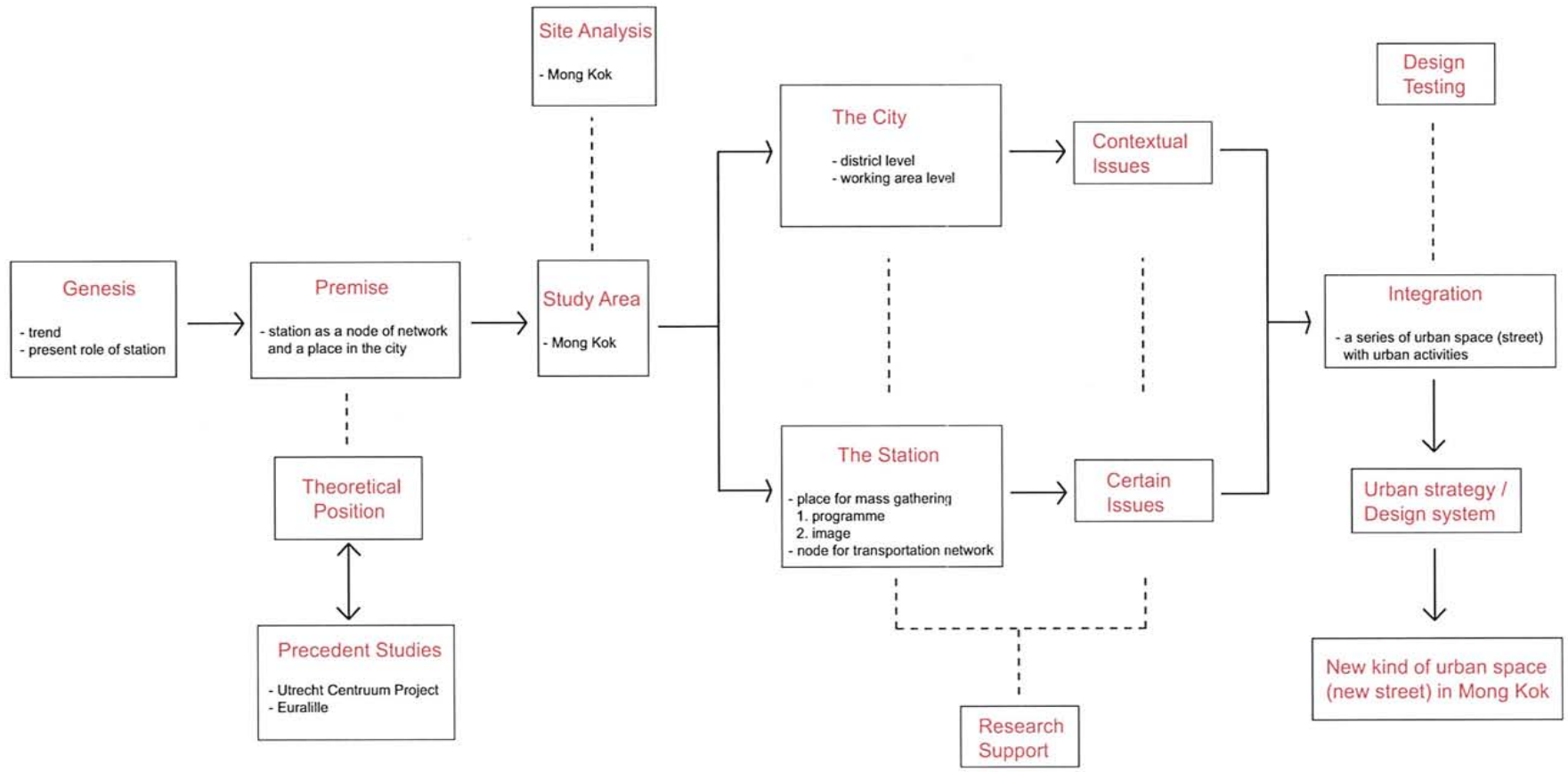
With the basic theoretical position,[1] it helps me to develop the thesis framework for study. Moreover, it also reminds me that the dominant research perspective should be more about transport and urban development strategy. It is not only the matter of station building itself, but also having a broader consideration of the city.

I have to deconstruct the study area as the following perspectives:

1. the city - Mong Kok (station as a part of city)
   The study would be focus on the contextual issues. The urban network as well as the urban fabric and its urban life and community would be studied comprehensively.

2. the station Mong Kok KCRC Station (station as a place and as a machine)
   the study would be focused on the existing environment and how to improve the station into the mass gathering place with appropriate connection to the surrounding.

In the real situation, these perspectives cannot seperate into individual, however, the framework can help me to make a deeper analysis and investigation for the entitled area.


Site Analysis
- Mong Kok
Design Testing
The City
- district level
- working area level
Contextual Issues
Genesis
- trend
- present role of station
Premise
- station as a node of network and a place in the city
Study Area
- Mong Kok
Integration
- a series of urban space (street) with urban activities
Theoretical Position
The Station
- place for mass gathering
1. programme
2. image
- node for transportation network
Certain Issues
Urban strategy / Design system
Precedent Studies
- Utrecht Centruum Project
- Euralille
Research Support
New kind of urban space (new street) in Mong Kok

## 0.6 schedule

2003 - 04 1st term

| | | |
|---|---|---|
| **defining issue and body of research** | 01.09.03 - 17.09.03 | - 1st revision of thesis proposal<br>- defining conceptual framework<br>- site justification<br>- site selection |
| | 18.09.03 - 07.10.03 | - site research with selected site according to the framework<br>- first attempt on critical issue<br>- 2nd revision of thesis proposal<br>- precedent study |
| | 08.10.03 | - external review |
| | 09.10.03 - 20.10.03 | - finalize the site information<br>- defining issue<br>- 3rd revision of thesis proposal |
| **body of research** | 21.10.03 - 18.11.03 | - start research<br>- precedent study<br>- start preliminary design<br>- 4th revision of thesis proposal |
| | 19.11.03 - 28.11.03 | - finalize thesis proposal<br>- finalize body of research<br>- develop a strategy<br>- testing strategy and develop a preliminary design<br>- documentation of research information |
| | 29.11.03 | - external review |

## 0.6 schedule

| | 2003 - 04 2nd term | |
|---|---|---|
| **design** | 05.01.04 - 08.01.04 | - revision of the thesis and explored theory |
| | 09.01.04 - 12.02.04 | - design<br>- 5th revision of thesis proposal<br>- design study |
| | 18.02.04 | - external review |
| | 19.02.04 - 13.03.04 | - finalize design<br>- detail design |
| **presentation** | 14.03.04 - 14.04.04 | - model<br>- drawings<br>- final thesis proposal<br>- documentation of design process |
| | 16.04.04 | - final review |
| **documentation** | 17.04.04 - 17.05.04 | - documentation of all research information and drawings<br>- fine tune design model |

ARCHITECTURE I CUHK I 2003-2004

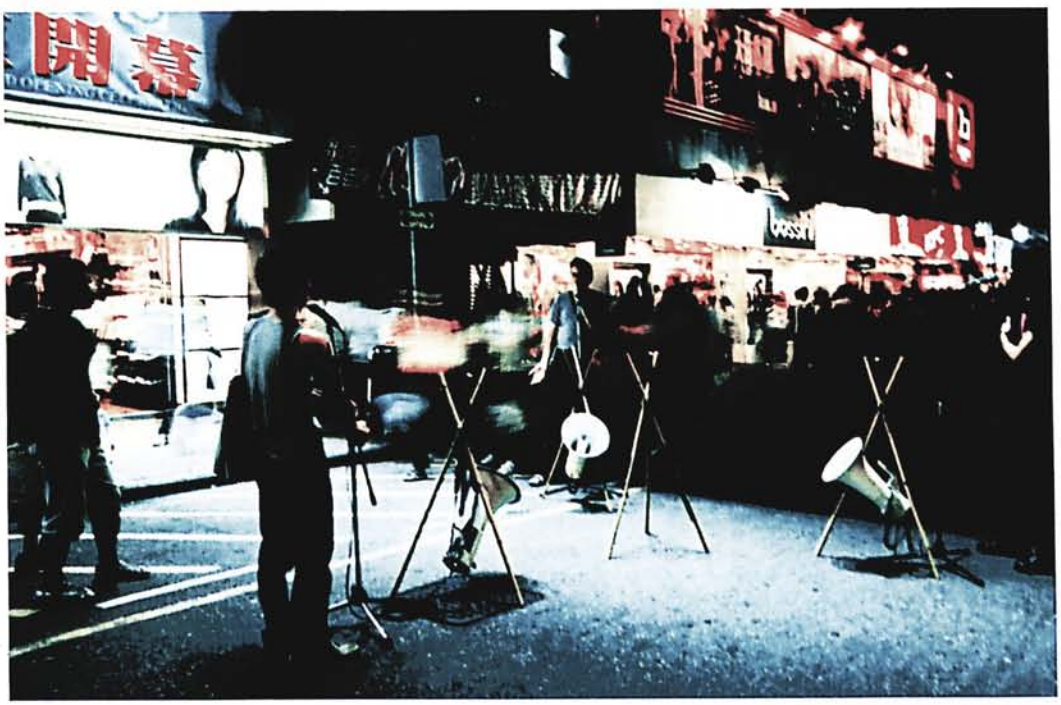
# FINAL THESIS REPORT
# PART B

student: chan chi chung I instructor: yuet tsang-chi

urban relief -
a greenery journey in mong kok
(re-connect the station and the city fabric)

body of research

## content




body of research

theoratical background

## 2.1 theoretical position integration

2.1.1

**definition**

According to the Oxford Dictionary, the word of "integration" has the following meanings:

- the act or process of combining two or more things so that they work together (= of integrating them): the aim is to promote closer economic integration.
- combine something in such a way that it becomes fully a part of something else
- become fully a memeber of a community, rather than remaining in a seperate group

**general**

**Cities on rails : the redevelopment of railway station areas / Luca Bertolini and Tejo Spit**

Luca Bertolini pointed out that a railway station as a geographical entity, it has two basic, though partly contradictory, identities:

***1. station as a node of network***

it has both a concrete meaning (a point of access to trains and, increasely, to other transportation networks) and a more abstract meaning ( a spots within the spatial interaction among the urban places, economic activities and people).

digram (from left to right)
station as node, station as a place,
station as a node and a place in the city

## 2.1 theoretical position integration

2.1.1

***2. station as a place in the city***

a specific section of the city incorporating the railway station but also with a diversified collection of buildings and open spaces, together with the activities they host, contained within the perimeter designed by a "walkable radius" centred on the railway station building, as amdended to take account of case-specific physical-psychological, function-historical and development features.

***3. station as a node and place in the city***

Also Luca Bertolini pointed out that the need for an integrated node-place perspective on station area redevelopment, the complex node-place interactions form the core issue of railway station development. Basically, the unique challenge of the development of node-places is the need to deal, at the same time, with both transport and urban development issues.

Thus, for Luca Bertolini, integration of the station and the city is an integrated node and place perspective on station area redevelopment which will deal with the urban development issues.

**related to thesis**

This theory help to develop this thesis framework for the research. With the integrated node and place perspective, the thesis would be framed as two main part for study:

a) the city: mainly focus on the contextual issue generated on the specific site
b) the station: using two perspectives (as a place and as a machine) to study the station

## 2.1 theoretical position connection 2.1.2

**general**

**Connections - way to discover and realize community potential / Jim Burns**

As mentioned above, the integration is about an urban connection of the station and the city. Thus the "connection" should have deeper understanding. According to Jim Burns, in his book "Connections - way to discover and realize community potential", connections are physical and non-physical.

***1. Physical Connections***

"Physical connections can be pathways, streets, sidewalks, alleys, passageways.....All of these and more include the buildings and other man-made structures that occur within the network they form. In some places, the buildings overwhelm the network; in other places they are overwhelmed by it. In ideal circumstances, they act together to form a comprehensive environment that is more than the sum of the individual pieces or parts. This total environment becomes a cultural and sensory experience within which we can pick out the individual parts to enjoy or use."

***2. Nonphysical Connections***

"Nonphysical connections include racial and ethnic patterns, official and unofficial culture, learning of all sort, economic practices and needs, creative vitality of groups and individuals, .....communications between people, structures of society and community determination. All these contribute that variety and virtually without which a city is only a machine for power and profit."

As Jim Burn mentioned, "I believe that this increased awareness of physical and nonphysical connections will lead to possibilities of curing conflicts between them and to realizing potentials for upgrading them, extending them, bringing them into a greater focus for sharing where the community will become richer and more interesting because of its variety."

With Jim Burn's position, the connection is not only a physical bridge link up one point to another. An appropriate connection should be considered as a network with the buildings to form a comprehensive environment that becomes a cultural and sensory community within which we can pick out the individual parts to enjoy or use.

**related to thesis**

While in the case of Mong Kok, the connection is only an engineering approach with transition only, which does not fall on the Jim Burn's position. Thus, in my thesis, the reconnection of the station and the city should be considered broadly with the urban community and activities, which is have a certain similarity with the Luca Bertolini's integrated perspective. In other words, by connecting what was there with what could be there, by connecting the continuity of the community's life and culture, by respecting existing fabric.

**awareness in communities when considering "connection" in the city**

The followings are the compendium of some parameters to become aware of in communities when considering the urban connections after understanding the *Jims Burn*'s book..

***1. Filling in the community network***

In every community, there are connections, separations, and elements in the pedestrian and vehicular movement system that are ignored and underutilized, and yet are available for improvement for people use. These are pieces of the urban network that forms a community's circulation system. Filling in this network can start to bring a community together.

***2. Separations***

Separations can be as important to environmental awareness as connections. There are opportunities in the community of turning boundaries into bridges, separation into connections.

**3. Accessibility**

Are there opportunities in the community that are not accessible to people? Is the inaccessibility because of physical, social, or economic reasons? What measures could make them more convenient and available?

***4. Progression, expectation, and surprise***

As people move through various environments, they are affected by where they are, where they were, and the expectations of what comes next. Thus the progression through space has the elements of expectation and surprise or discovery. And it is a traveling experience to read the city.

***5. Extensions, insertions, and transformations***

Extension can occur when buildings and people try to reach out to the surrounding environment and their neighbors. This is different from the usual way architecture is done, where the building as a designed object is seen as important in itself, and its contacts with contiguous place is usually ignored.
Insertions can happen when something new joins something older. A new building can be placed into existing streetscapes of older buildings without radically violating the qualities and character of the neighborhood. Appropriate design springs from joining the community, not from eliminating and replacing it.
Transformation of existing places can comment on social, cultural and environmental conditions as well as indicate possibilities for change without the demolition that often accompanies renewal and development.

***6. Scale***

Scale is the relationship inn size between things. The effects of scale can make you feel welcome, in awe, intimidated, secure, comfortable, uneasy, threatened, or in charge of the situation.

## 2.1 theoretical position connection



In order to have a better understanding of the connection as well as the reference of architectural solution, the following works are conducted.

State Street in Madison
The new Tacoma Convention Center
Pennsylvania Station

The first two cases would be mainly considered the connection in the society. They are not included a railway station, but with the urban building. Thus, the "connection" can be more focused. While the last two cases would be included a railway station for investigate its "urban connections" to integrate into the city.

**State Street in Madison** *1. nonphysical connection in the form of street*

Connections between government, culture, learning, and commerce being made in Madison, Wisconsin. Redesign of downtown state street between the state capitol and the campus of the University of Wisconsin, with an emphasis on people's use and activities in all seasons, will cause an existing connective resource to take on renewed vitality and utility for the people. The conversion of the Paramount Theater and Montgomery Ward store on State Street into Madison Civic Centre and a multiuse creative arts center.

*2. Related to the thesis (exploration)*

Instead of a physical linkage, this cases remind me that having redesigning the street, reprogramming the activities and re-intervening the existing building, a nonphysical connection in the form of street could be created. With this connection, a continuity of community and urban life could be formed.

picture (left)
the connection between the government building and the university to create a community.

**Tacoma Convention Center**

***1. Urban connection: The new Tacoma Convention Center site is 'a zone of convergence'***

The new Tacoma Convention Center won't just be a place for big meeting and exhibitions. In the broader geography of the city, the center will act as a bridge. By virtue of its location, the convention facility is expected to help create a new sense of connection among several distinct sections of the city. The convention center development site, at South 15th and Commerce streets, is south of Tacoma's business district, west of the Thea Foss Waterway, and northwest of the city's historic museum district and the University of Washington's Tacoma branch campus.

As a result, the convention center site is "a zone of convergence", it encourage the flow of pedestrians through the site by using a plaza, sidewalks and a new connection that will cut through the middle of the site. In addition, the general public will be able to walk through the facility using its elevators, escalators and grand stairway. Thus, the urban connections are very much emphasized.

***2. Related to the thesis (exploration)***

In the city, a building also can be an urban connection if it has appropriate programs. The convergence of people makes the building become the center of the city which connecting people and urban life together. As a result, the connection itself become the mass gathering place.

picture (left)
new Tacoma convention centre

## 2.1 theoretical position connection

2.1.2

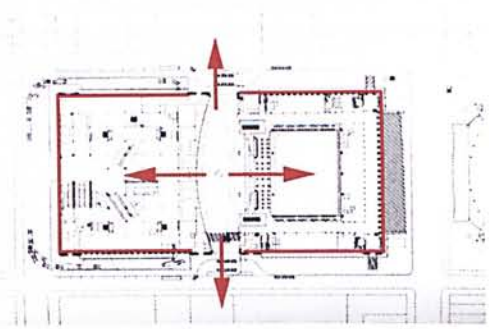
**Pennsylvania Station**

*1. a grandly scale public space with public programme*

Serving more than 500,000 people daily, Penn station in midtown Manhattan plays a pivotal role in the city. But its subterranean complex beneath Madsion Square Garden lacks public spaces suited to its role as a major urban gateway. The redevelopment calls for a new station within 1,400,000 sq-foot Post Office, a Neo-Classical structure that sits adjacent to the existing facility and directly above its train platform.

The scheme takes advantage of the geometry of the post office site by occupying a former roadway and loading area between the Farley building. By inserting the new station into the midsection of the site, and leaving intact the original facades of the post office, the project respects its host building. It also provides a grandly scaled public space with double shell glass structure, announcing the station's presence and enclosing the new street-level ticketing hall.

picture (right)
New Penn Station with Farley Building and Office Building



picture (left)
the grand public space connect to the existing road network and make the two separated building come into one
picture (right)
In order for the post office to retain its historic lobby, passengers are direted to a grand new mid-block entrance

*2. Related to the thesis (exploration)*

The project suggests a kind of connection with a dramatic public space, it is not only connect to the existing road network, but also the urban life of the city, as it is also a post office. The space will become a focus of the city which can gathering the mass. Moreover, the connection between the historical building (the past) has been created by conserving the historical building (post office).

**general**

**Stage II Study On Review of Metroplan and The Related Kowloon Density Study Review, Final Report Panning Department feb,2003**

The report suggested a theme which called "User-friendly city" to enhance the Metro Area as an outstanding centre for Asia's World City.

***1. User-friendly city***

The Strategy principle is to encourage the use of rail and pedestrian transport modes in order to reduce road congestion, air pollution, traffic noise and the need for additional intrusive highway infrastructure. Every effort should be made to ensure the provision of attractive pedestrian linkages to rail stations from their hinterland residential areas and district centres.

It suggested that the Metroplan aimed to provide an integrated land use / transport plan so that the railway staton and the Metroplan land use are developed together with more emphasis to pedestrian system.

**related to thesis**

According to the report, the station should be integrated with the city context by a kind of urban space which could promoting pedestrian movement to experience the city. It is also a recreational activity either on its own or in conjunction with shopping. Provision of convenient pedestrian facilities and an attractive street environment enable people to enjoy more take better advantage of the city.

## 2.1 theoretical position others



**supporting theory**

**The image of the city / Kevin Lynch**

***1. node***

According to the five types of elements of the city image, nodes are points, the strategic spots in a city into which as observer can enter, and which are the intensive foci to and from which he is traveling, They may be primarily junctions, places of a break in transportation, a crossing ot convergence of paths, momments of shift form one structure to another.

**Event cities / Bernard Tschumi**

***1. urban generator with high density of program***

We have to demonstrate the hypothesis of urban generators, or architectural systems that are actual catalysts for every kind of activities or function, independent of the form they may take. In such city-generators, functions and programs combine and intersect in an endless "disprogramming" or "crossprogramming".

**further investigation**

In order to have a better understanding of the thematic issue of the thesis as well as the reference of architectural solution, the following precedents studies are conducted to achieve it.

Following foreign cases and local cases are chosen for analysis:
1) Utrecht Centruum Project (UCP)
2) Euralille
3) Shatin KCRC Station

The main intention is to study the integration of the railway station and the city. Their design solution and strategies will be examined. The definition of "integration" may be re-interpreted.

The study approach also divided into three parts:

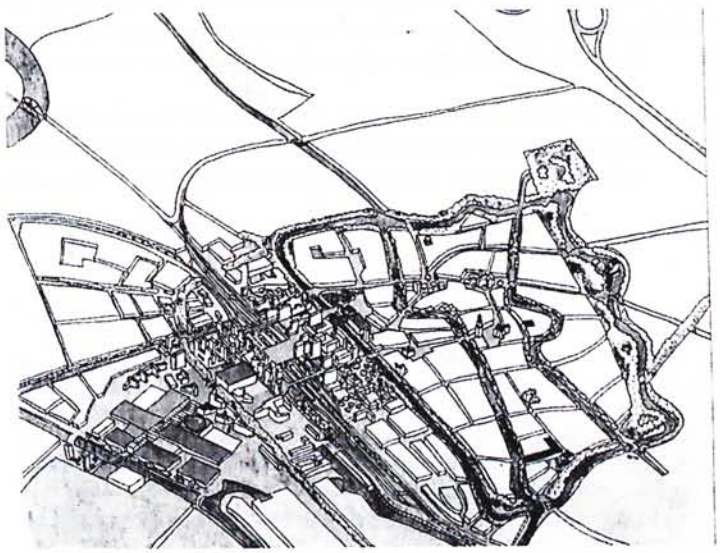
1) station
2) city
3) integration

## 2.2 precedent study utrecht centrum project (UCP)



**introduction**

The publication in 1986 of the document "Densifying around stations" was a particularly explict example of many signs that railway station area redevelopment was taking off in the Netherlands. Densification of station areas is advocated as the logical corollary of compact policies and of the promotion of public transport. One of the most ambitious station redevelopment plans in the country. the Utrecht Centrum Project (UCP), which aim to create a spacious and lively city centre connecting to the surrounding districts.



picture (left)
Provisional urban design plan; artist's impression
cities on rail

location: Utrecht, Netherland

stage: under construction till 2008
area ownership: mostly Utrecht municipality and Dutch railways (NS)
total floor area: 616,700 m2 (net, excluding leisure)
programmes: offices
housing
commercial: retail, hotels, restaurants, cafes
culture: concert hall, music hall
leisure: casino, megatheatre, mutliplex cinema, food and leisure court, urban entertainment
parking: car, bicycle

## 2.2 precedent study utrecht centrum project (UCP) 2.2.1

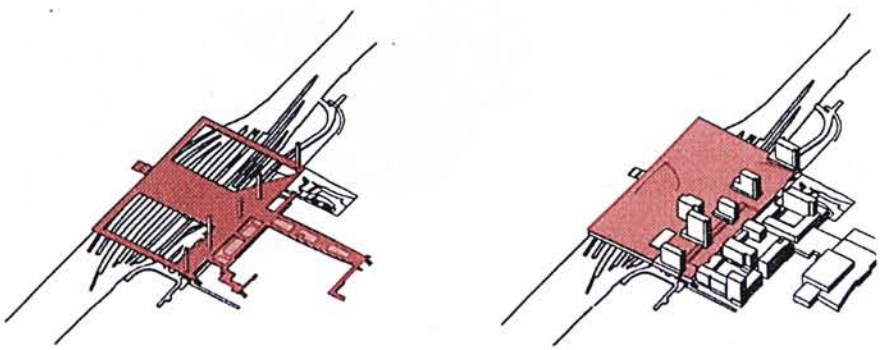
**station - as a machine** *one terminal concept*

In 1997, 110 000 passengers make daily use of the interchange due to the central location of the station. It is a node with intense growth prospects: the expectations are that by 2015 it will handle around 205 000 passengers a day.

Thus, the efficiency of managing the commuters interchange flows with other publis transport is highly request in the station. Here 200 000 passenger movements (exchange) per day would take place. The same level of quality for all transport means must be obtained, and this qaulity must extend into the surroundings.

Interchange is the central concept of one-terminal. It is a good example for the intergration of a new car and bicycle tunnel, a new compact bus station, new parking spaces and extension of platform. Priority is given to the integrated logistics of the user, instead taht of autonomous transport companies.

one-terminal concept diagram (left to right)
east-west tracks and lanes (tram and bus)
north-south tracks and lanes (train, tram and bus)
cities on rail

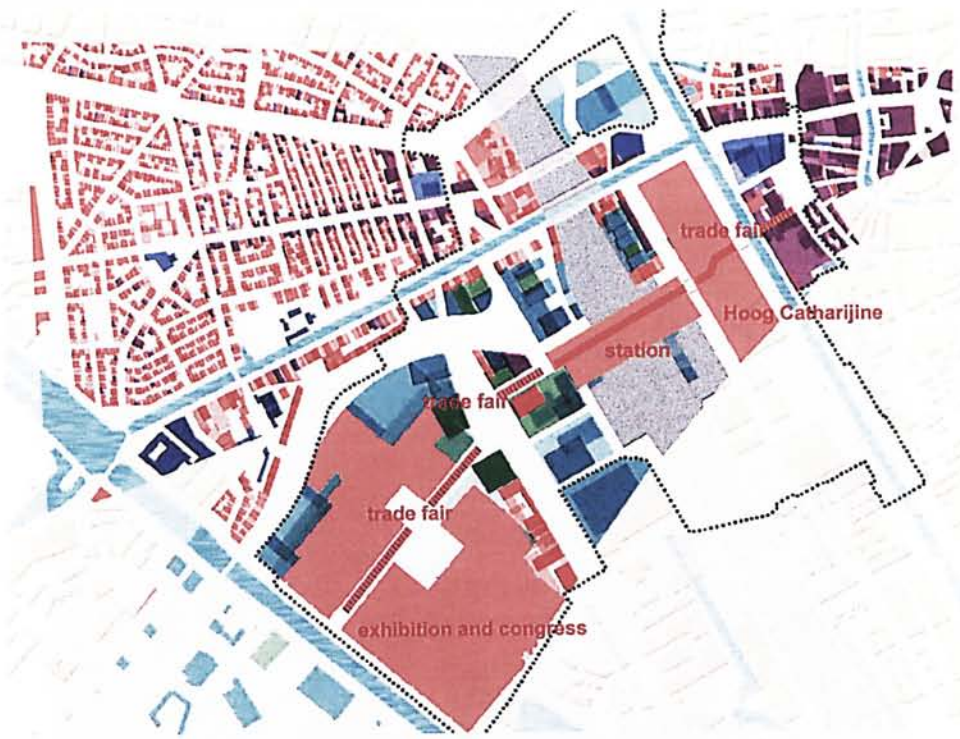


one-terminal concept diagram (left to right)
passenger hall
roof (urban plaform)
cities on rail

## 2.2 precedent study utrecht centrum project (UCP) 2.2.1

**station - as a place**

The great passengar hall create a sense of place inside the station, while it is also linked to the congress and exhibition centre of the Jaarbeurs and a giant shopping and office complex, which also contains cultural and sports facilities and housing. These elements connect together by the trade fair to form a place converging the mass for urban events and activities.



## 2.2 precedent study utrecht centrum project (UCP)



**city - utrecht**

***1. strengths***

- Utrecht has a historic centre which having lots of important buildings and public squares
- the popularity of Hoog Catharijne (HC), a giant shopping and office complex
- a congress and exhibition centre, Jaarbeurs, with international reputation

***2. weakness***

- the widespread perception of the public spaces as unpleasant and insecure
- the ambiguities in the organization of functions (what is public? what is private?)
- the poor connections between the station, HC, the congress and exhibition complex, and the city centre
- bad transition with the dark corner and sad streets between the station and the old city

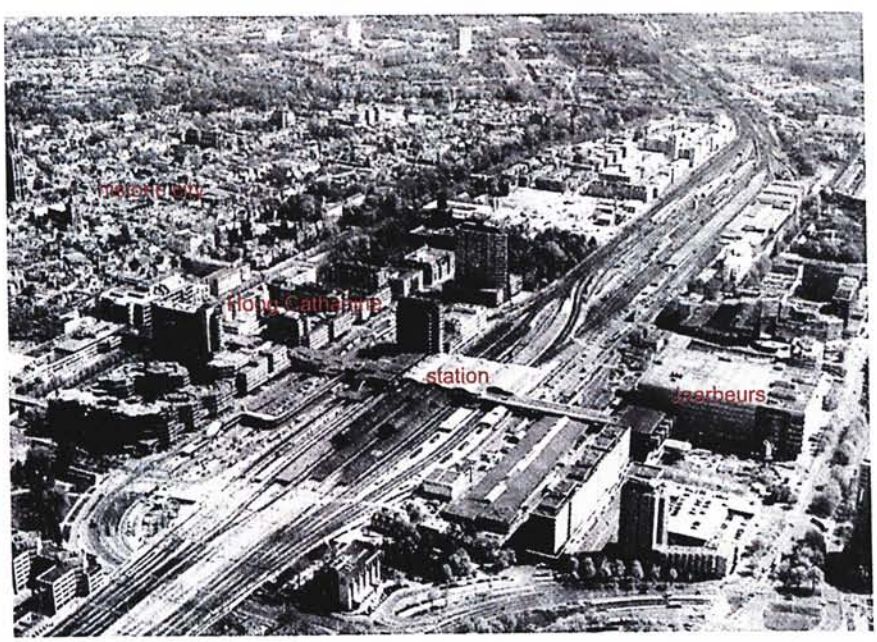



photo (left)
Utrecht, the city
cities on rail

## 2.2 precedent study utrecht centrum project (UCP)



**integration - design system**

*1. Objectives*

- the main objective is to give clarify - and a feeling of security - to the pedestrian public spaces
- integrating them into the existing networks of the station area
- by the three ambitions: to restore, to reconnect, to render area meaningful

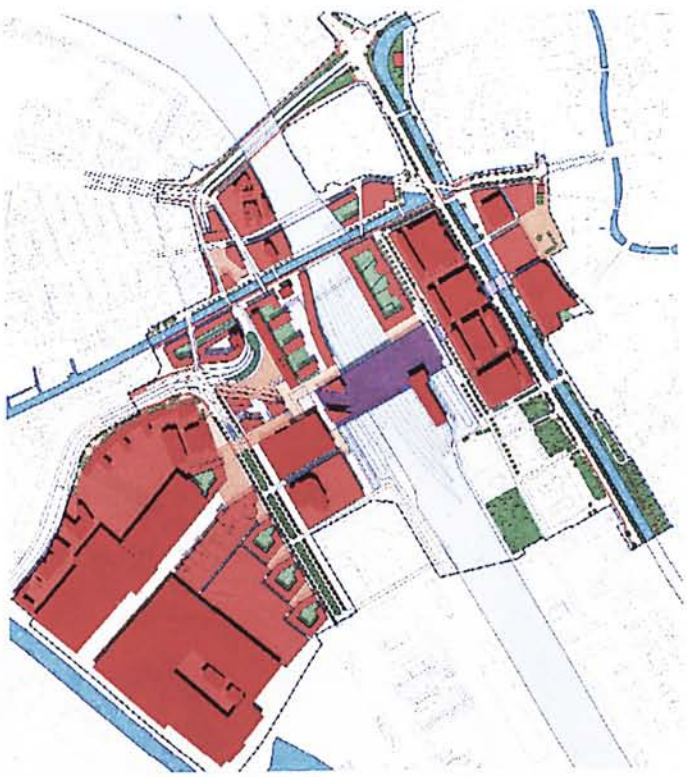


diagram (left)
new city map, UCP
city of Utrecht, project organization

*2. Solution Guideline: a system of open spaces*

The solutions with a system of open spaces entail reinforcing the axis formed by the city centre and the congress and exhibition centre, improving - with a new station square - the relationship between the city centre and the railway station, and realizing a new station complex, in accordance with the "one-terminal" concept.

diagram (left)
solution guideline: the system of open spaces, integrating station and city
cities on rail

## 2.2 precedent study utrecht centrum project (UCP)



A direct and open link between the railway station and the city is achieved by demolishing part of HC and replacing it by a station square. From this square, people can enter a new railway station balcony, giving access to all different transport networks. The new "total" station will also be a link between the city centre and the western districts on the other side of tracks.

The Jaarbeurs will embark on an ambitious programme to diversify its activities in the culture and entertainment sphere. The national railway, together with the local transportation companies, will pursue a concept for the node, with all transportation flows being handled under one roof.

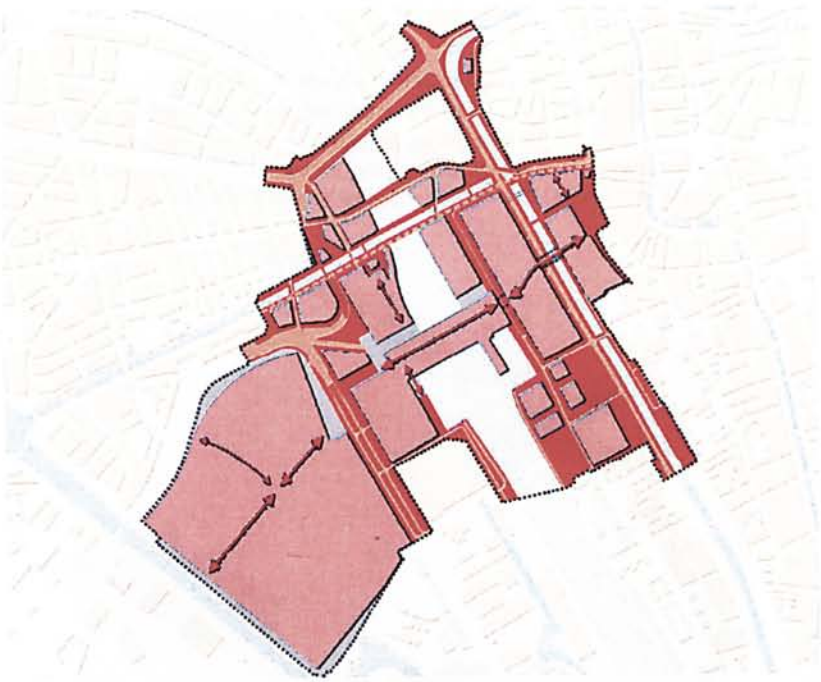



diagram (left)
a new framework of station area
city of utrceht, program organization

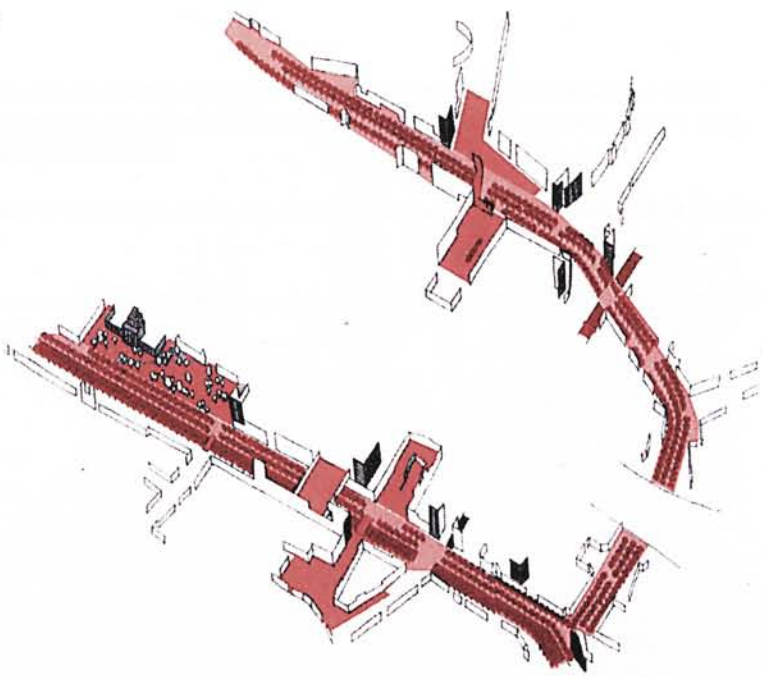
*3. urban design specifications*

- city boulevard

- means to solve the accessibility-liveability dilemma
- existing roads will be upgraded into a four-lane ring road with bus lanes, bicycle paths and footpaths around the area.
- lined with rows of trees, and will run along the canals
- while performing necessary traffic distribution functions, it will also become an integral part of the network of public spaces

- city corridor

- runs from the Leidsche Rijn district via the Westplein square, where traffic will disappear underground, to Vredenburg square and connects the western parts of the city with the inner city
- dominant functions of the city corridor are living, shopping and culture.
- public functions such as a new music centre, possibly the library and a mosque are located along this route
- emerges an urban, univocal route intended for the inhabitants of Utrecht and offering primary functions for the city's pop



picture (left)
the city boulevard:
solution of the accessibility-liveability
cities on rail

## 2.2 precedent study utrecht centrum project (UCP) 2.2.1

**evaluation**

***1. the difficulty of intermodal transfers***

The Utrecht transport node is in continuous flux. It has recently been expanded and adapted. The integrated perception of the user, rather than the compartmentalized persepctive of the transport operators, will be guiding criterion. If implemented, the one-terminal oncept would redress the present shortcoming: the difficulty of intermodal transfers.

***2. competition between economic and urban space***

Utrecht Centraal, including its surroundings, is faced in a particularly explicit way with one of the most difficult dilemmas of railway station area redevelopment. On the one hand, the area is a highly accessible place, attracting concentrations of high-profile functions. On the other hand, it is part of a wider urban fabric, often of a totally different order. A crucial task is to allow both the station area and the surrounding neighbourhoods to develop autonomously while ensuring that complementarity rather than destructive competition prevails. Such a task has many dimensions. These include realizing the quality and continuity of the publis space, managing traffic to and through the area, and managing the competition between economic activities.

**exploration**

The station and the city is integrated with a system of open spaces in this project, which is well suitable for the historical character with important buildings and public square. However, when in the very dense urban city, like Mong Kok in Hong Kok,

The open space is very limited, thus, is it a possible to creat a series of urban space to integrate the station into the city?

Moreover, the commercial activities are very dominant in Mong Kok, how to due with the conflict between the private and public realm?

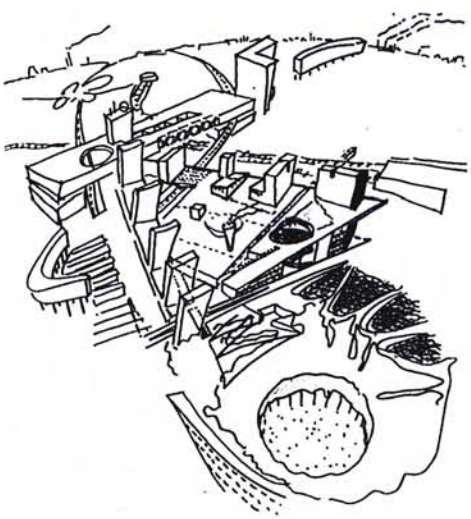
## 2.2 precedent study Euralille 2.2.2

**introduction**

In the 1980s, France witnessed the birth and expansion of a number of urban development projects. The logic and strategies of urban planning must now be adapted to fit with a European context. As the notion of territory -- whether political, geographic or economic -- expands, the traditional national hierarchies (states/ regions/ cities) have exploded, to be replaced by a reconstruction space. Borders have become mobile, giving rise to new relationship. Euro-cities are being drawn up. Lille has not escaped for improved positioning on a European level with the impetus of a major infrastructure event -- creation of Northern European TGV line.

In the words of Rem Koolhaas, Euralille is based on the hypothesis that the perception of Europe is going to change completely under the dual impact of the high speed train network. If this hypothesis is borne out, Lille, as the receptable of a great many typically modern activities, will gain considerable importance.....Working within the existing context our task is to make a quantum leap towards a radical future as exotic as it is imminent.[1]

1. l'Architecture d'Aujourd'hui, 1992



picture (left)
overall view,
Euralille, the making of a new centre

Architects: Rem Koolhaas
location: Lille, France

stage: completed in 1995
area ownership: numbers of private investors within a master plan defined by the public sector
programmes: higher education
temporary housing
commercial: retail, hotels, restaurants, cafes
world trade centre: event hall, exhibition spaces, congress space
leisure accommodation
parking spaces
urban park

**station - as a machine**

***1. A linear base with grouping the infrastructure together***

The transport infrastructure that had to be built:
1. new TGV line and station,
2. a new metro underground line and station,
3. a new rapid-tram stop,
4. reconstruction of the motorway bypass,
5. a new road viaduct,
6. underground parking providing a total of 6100 places

It can be seen in the interweaving of the infrastructures, and are present on the site of the TGV station, where six TGV tracks are closely aligned, along with the three-lane ring road and four parking lot roads. This rapid exchange and distribution network constitutes the central nervous system of the project.
The spatial density of the network and the apparent tensions between them, heighten the efficiency of the station.

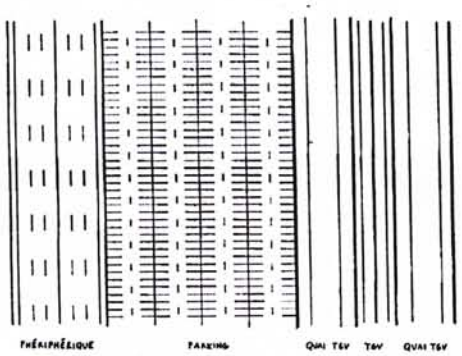
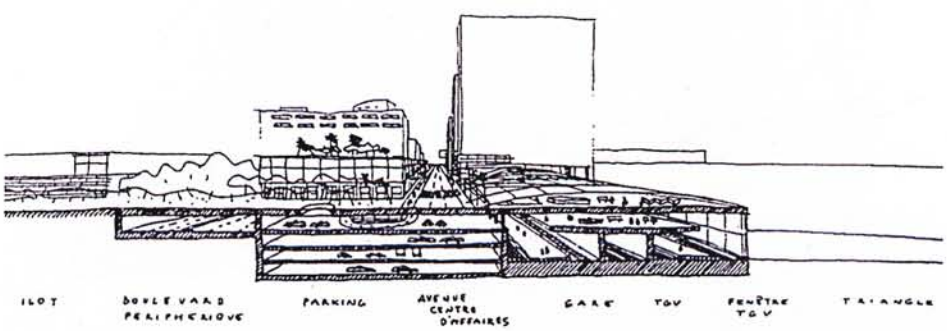



diagram (left)
grouping of infrastructure
Euralille, the making of a new centre




cross section of station (left)
base of the infrastructure
Euralille, the making of a new centre

## 2.2 precedent study Euralille



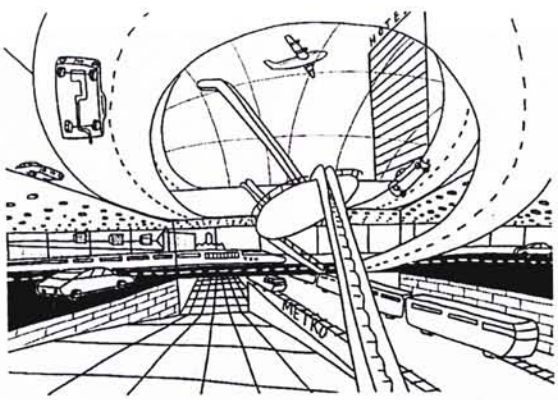
**station - as a place**

### *1. Piranesian space by opening up the TGV box*

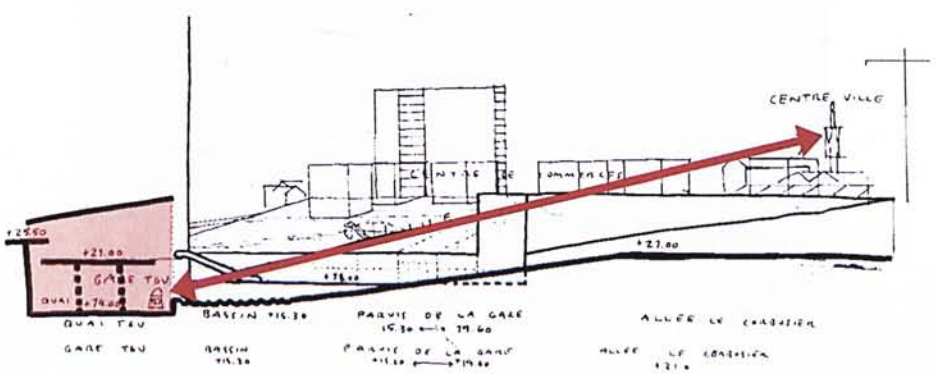
The new station should reflect the lines of tension and interconnection of all the interurban and long-distance networks which interest the site. The train was to become a tangible physical presence in the city.

TGV box is opened up to bring the universe of travel into the city's field of vision by making the metro station a mostly transparent receptacle linking the parking lots, the TGV, and the multiple railway lines which converged there. The glazed paneling of the triangle facing the city park which creating visual link between the station and the city.

The space was designed to make the most important statement in the form of void. In other words, a place that is not constructed, but which in fact constitutes a purely empty space containing all the links.




picture (left)
piranesian space,
Euralille, the making of a new centre




picture (left)
creating a visual link between the station and the city,

## 2.2 precedent study Euralille



**city - lille**

***1. strengths***

- Lille has a historical centre and lower-density suburban neighbourhoods
- Lille itself is the core of a truly polycentric metropolitain area
- a total of 1,100,000 people live, not counting 500,000 inhabitants of the adjoining Belgian municipalities

***2. weakness***

- residential areas on the other side of the tracks had little social and economic contact with the city centre
- because of the military rights, there was a vast amount of unbuilt land which seperating the surrounding areas from the city centre
- because of the many infrastructure barrier, general property dynamics were low

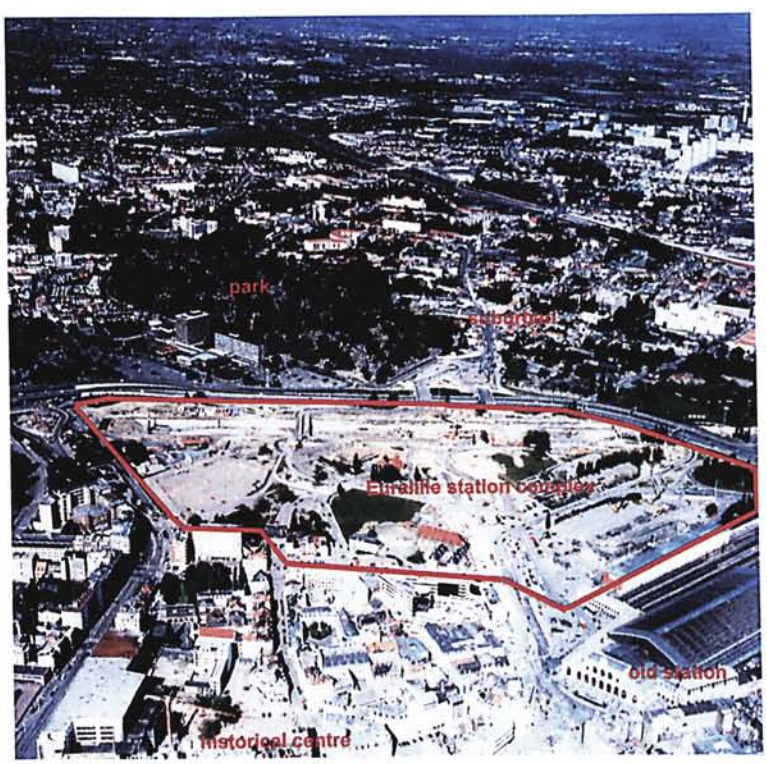



photo (left)
Lille city
Euralille, the making of a new centre

## 2.2 precedent study Euralille



**integration - design system**

### *1. Objectives*

- the main objective is to transform Lille into a new European centre
- reconnect the suburban neighbourhood and the historical centre to increase social and economical contact

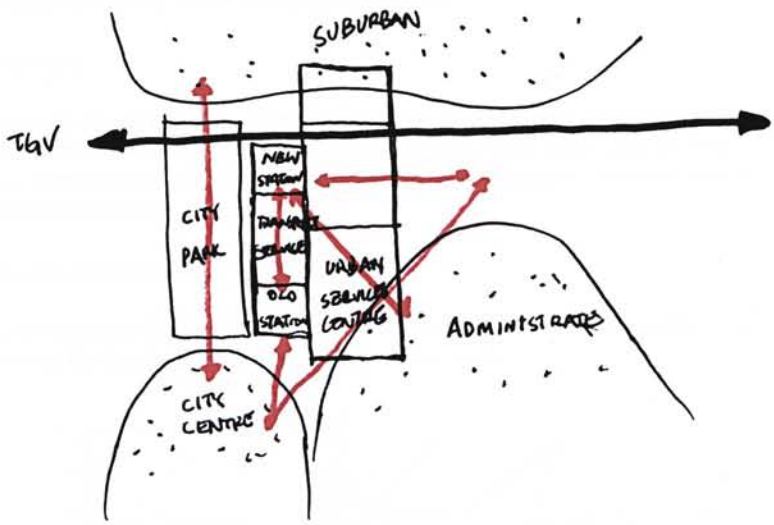



diagram (left)
spatial framework of Eurlille

### *2. Framework Plan*

A new station complex with extremely large in size and large varieties of programmes to generate a new city generatoes. The project brought together 4 major functions:
1. an urban service center,
2. a transportation service center,
3. an exchange service center,
4. and a city park.

The urban service center, along the transportation service center (between the two stations), forms the center of gravity for the entire area. Their respective positions form a triangular space which puts them at the interface of the various functional sectors, as well as linking them with the neighboring built up area.

Studied carefully, the framework plan reveals a relatively traditional development perspective. It is an attempt to create continuities with the existing city, and it plays down traditionally cold image of the business center, by combining the ingredients of urban life.

### *3. urban design specifications*

- Addition of public space

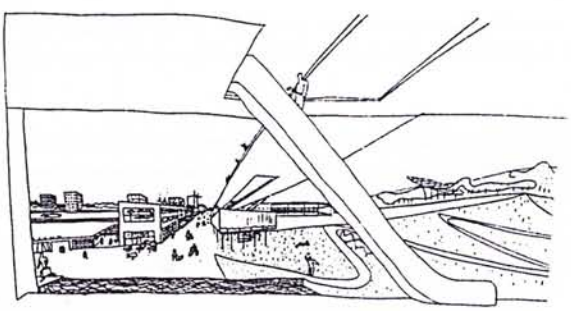
The public spaces, including the square which was placed slightly lower than the TGV station, became the center stage of urban life with the addition of small-scale facilities.This can bring the urban activities within the station complex which create the continuum of urban activities.

- Addition of landscapes

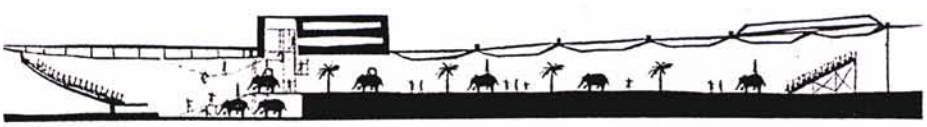
The transition between the vertical alignment of the business gallery towers and the relative horizontality of the neighboring districts is explored.A combination of landscapes, using green patches which follow on from the city park, and communal hosuing and other facilities which will establish close links between the station area and the districts to the east.

- Bridge building with urban events

Bridge building, an important functional component, which having several urban activities insides. It was supposed to connect the business center with the area to the south.



picture (left)
urban park with landscape ,
Euralille, the making of the new centre



section (left)
congress building with urban events,
Euralille, the making of the new centre

## 2.2 precedent study Euralille



**evaluation**

***1. under provide of pedestrian connections***

With the rapid development of the transportations, the improvements of all transport levels and modes have been well-planned in the development. However, the pedestrian connections to, from and through the area do not always make the grade. Neighbourhoods on the eastern side are difficult to reach from the station complex and congress and exhibition centre and they are complicated and time-consuming.

***2. highest degree of interconnection with a dense urabn mass***

The new profile functions that have been introduced include an international business centre, an international congress and exhibition centre, and a regional shopping centre. These exceptional elements have been deliberately embedded in a diverse urban district. Thats result a prominent place with the public participation and investment.
With the rich network of public spaces linking the elements to make a whole must be also seen as part of this "urban" strategy.

**exploration**

The station and the city is integrated with a extremely large complex as well as a large varieties of urban events. This integration connects the international and regional participation together, it results the generation of a new city centre.

The Euralille project is a completely new construction to the city with the available of land, however, in Mong Kok case, the station is already here and the land is limited, it is not a suitable integration with a new station complex.

However, the idea of high density of urban events is approiated to generate a new centre in the city, which can make public participate.

## 2.2 precedent study shatin kcrc station complex



**introduction**

Shatin KCRC station is one of the major point along the KCRC eastern railway. After the electrification of the railway from Hung Hom to Shatin, a new shatin railway station was completed in 1984. After a year, New Town Plaza (a giant shopping mall) was completed to integrate the station to form a centre of the city in 1985. This relationship between the station and the city is used to form a city centre of a new town in Hong Kong. thus, the station area becomes the city generator of the city.


photo (left)
shatin kcrc station, entrance to new town plaza

location: shatin, Hong Kong

stage: occupied since 1984
area ownership: kcrc company and new hung kai developer
programmes: shopping mall
offices
commercial: retail, hotels, restaurants, cafes
culture: city hall, library
leisure: casino, megatheatre, mutliplex cinema, food and leisure court, urban entertainment
transportation: bus terminal, car parking

## 2.2 precedent study shatin kcrc station complex

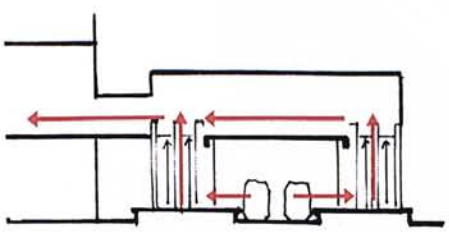


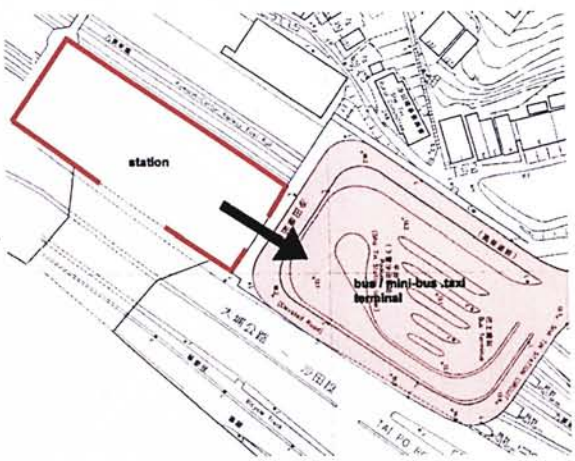
**station - as a machine**

***1. station box with concourse on the top***

Mostly in Hong Kong, the station is a machine box with two levels:
- one is the platform level with two rail lines in the middle
- one is the concourse level which connect the platform level by escalator

The other public transports are adjunct to the station with the concourse level. Thus, people will immediately see the public transport area after leaving the concourse, that increase the convenience of the interchange.






station box section (left)
transportation interchange diagram (right)

photo (left)
transportation interchage adjunct to the station

## 2.2 precedent study shatin kcrc station complex



**station - as a place**

***1. shopping mall as a mass convergent palce***

The giant shopping mall, New Town Plaza, is directly connected to the main entrance of the railway station. Thus, the arrival place of Shatin is the shopping mall where can experience the most of the urban commercial life. With an urban mass source (urban facility) connectd, the shopping mall is always crowded to form a mass gathering place. At the same time, the commercial activities are catalyzed to increase the economic profit.

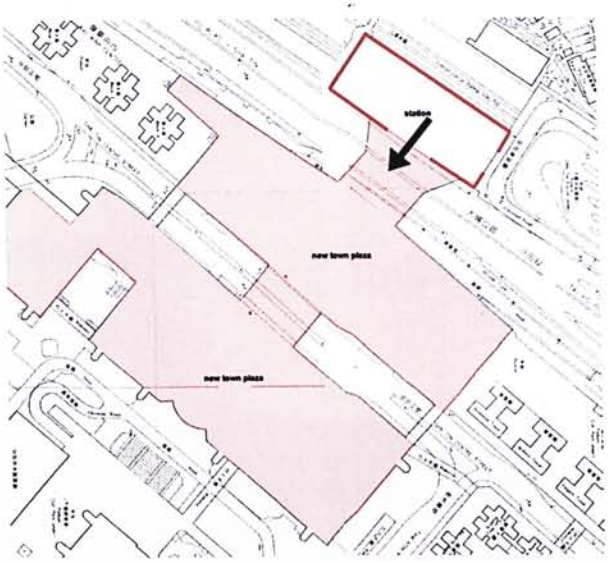



diagram (left)
shatin kcrc station and shopping mall

photo (left)
arrival place

photo (left)
shopping mall as a mass gathering place

## 2.2 precedent study shatin kcrc station complex



**city - shatin**

***1. strengths***

- shatin is a new town with a comprehensive planning
- urban development is along the river, which create a linear development
- the areas next to the river are the main leisure and culture zones
- the surrounding area is mainly for the residential, thus the density of people is very high
- the residential developments are always with podium for community and commercial uses

***2. weakness***

- traffic road cut the districts into several parts, this decrease the continunity of the city
- the ground level is planed mainly for traffic, so the ground level street life is very limited


photo (left)
shatin new town

## 2.2 precedent study shatin kcrc station complex



**integration**
**- design system**

*1. Objectives*

- reconnect the surrounding residential areas in order to increase the accessibility
- to create a town centre with the commercial, leisure and cultural activities

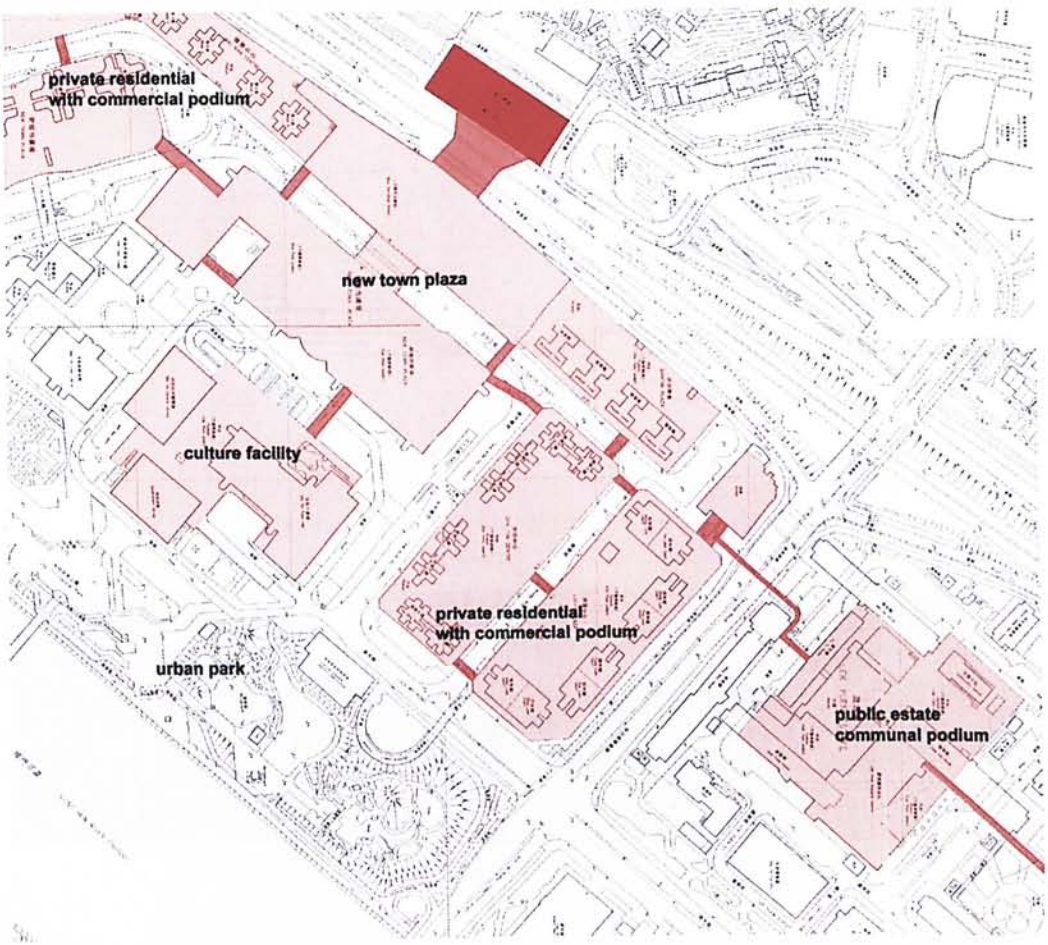
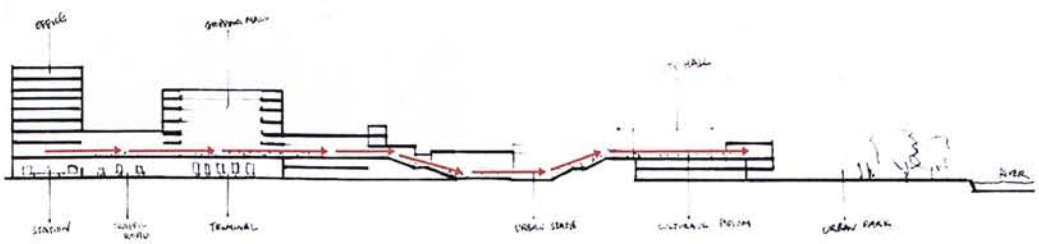



diagram (left)
shatin station area - link with podium and elvated bridge

*2. Design Guideline*

With the same level of the residential podium, the station concourse and the shopping mall, they are designed to link together by the elevated footbridge. As a result, a large part of city can be traveling through the podium with commercial and communal activities.

The intention of the whole system is to create an extremely large community podium extending from the station concourse level. This podium with a highly accessiblity is a city centre for urban life.



section (left)
urban section with shatin


photo (left)
urban stage

*3. urban design specifications*

- commercial podium

The commercial podiums are located near to the shopping mall and the station, with the clsoe distance to those popular places, they also attract the visitors to come and buy things.

photo (left)
commercial podium - shatin plaza

- communal podium

Along the connection, after the commercial podiums, the communal podiums and market complex are located and still linked by the same movement level, which mainly serve for the local residents. This can also solve the traffic boundary in the ground level

photo (left and right)
market complex and communal podium for a public estate

## 2.2 precedent study shatin kcrc station complex 2.2.3

- cultural podium

A cultural podium with town hall and central library is connected to the shopping mall by the urban stage. It becomes the centre of leisure activities along the central park.

photo (left)
cultural podium with city hall and library

- elevated footbridge

Short elevated footbridges are used to connect the podiums. They are mainly covered and sometimes enclosed. However, there is no activities happen inside but transition.

photo (left)
elevated footbridge linked the shopping podiums

## 2.2 precedent study shatin kcrc station complex 2.2.3

**evaluation**

***1. elevated movement network***

With the characteristic of podium, the elevated movement network provide a kind of safe and rich traveling experience for the local residential and visitors. This also allow ground level mainly for transportation uses.

***2. loss of habitable street***

However, the system make the habitable street disappear in the city, the communal activities only can haapen in the specific buildings which are not good for community. Also the commercial shopping podium is not a good place for stay.

**exploration**

The idea of extending the station concourse to the surrounding podium and linking to the other part of city is suitable integration in Hong Kong. It can also enrich the traveling experience, which people can look into the city life through the jounery.

In Mong Kok, there are several level difference between the station concourse, station platform, ground level and podium level. These difference may be an opportunity to generate a system to integrate the station into the city.

And also along the jounery, the experience is very important to the image of the city. Some kind of activities may be induced also.

## 2.3 summary

**comparsion**

| | utrecht centrum project | euralille | shatin kcrc station |
|---|---|---|---|
| **integration typology** | a system of open space | a totally new and large buildings complex | elevated movement net-work through podium |
| **station (machine)** | one terminal concept (vertical distribution) | grouping of infrastructure (vertical distribution) | adjunct to the station (horizontal distribution) |
| **station (place)** | large passenger hall connected to other urban building creating a sense of place | station with strong visual link to the city and it immediately connect to the urban park with a strong sense of place and space | station itself have no sense of place |
| **city (strength)** | historical city with squares and landmarks which can match with the open space | international role is enhanced by the large varieties of international programme | commercial podiums linked together to create a large shopping district |
| **city (weakness)** | historic city is re-connected by the open spaces | the suburban and the historical centre still have poor pedestian connection | reconnect the areas which is cut through by the traffic road, but the habitable street is lost |

**re-definition** After the comprehensive investigation, a more clear definition can be stated with good integration:

"The integration of the station and the city" is the urban strategy or urban development to connect the seperated station and the existing city together according to the specific contextual issues and the site characteristics. As a result, the station would be a part of city which can benefit each other.

body of research

the city

## 3.1 district level mong kok background 3.1.1

**general background**

location: at the center of the Kowloon Peninsula
area: 147 hectares
density: 1072 person per hectare
average domestic household size: 2.85
household income: HK$14500
main function: residential and commercial
configuration: grid layout

**introduction**

Early in the 20 th Century, Mong Kok has been developed into a commercial and residential centre. At that time, the Government and other communities did not plan Mong Kok into a self-sufficient district in terms of its community facilities, this leads to uneven usage of the land today.

The own characteristics of Mong Kok, within a mixed and complex group of issues. It is a place rich in content and context. It is a place of belonging to Hong Kong people. It is a place full of controversies and disputes. It is a place to make one excited and nervous. It is a place full of possibilities and constraints. It is a place full of imagination. Temporary, 24 hours life, order and disorder, transportation centre, commercial, signage, entertainment.....

Mong Kok itself is characterized by it's unique identity.

Thus, recognition the context of Mong Kok is necessary for the thesis.

**population**

Due to the development of new towns, the population of Mong Kok was decreasing in the past decade. However, since immigrants from mainland China have kept coming to Hong Kok in recent years, the population of Mong Kok in the future may be increased.

**age structure**

The age struture of Mong Kok is similar to that of the Kowloon Peninsula. Yet, compared to Hong Kong as a whole, Mong Kok has a higher proportion of population aged 60 and over. However, the visitors in Mong Kok are mostly in young age group, it is because of the commercial activities in the district.

**land use**

Except the major roads, most of the area in Mong Kok is zoned for residential use. Only 5.5 % of the area is dedicated to "open space".

## 3.1 district level mong kok background 3.1.1

**open space**

***1. shortage of open space***

According to the datas, the amount of open space in Mong Kok is not under-provided, however, most of them are not "open", they are indeed not many people use.

***2. uneven distribution***

There is very little open space in the south-east part of Mong Kok, where is the most busy and popular areas in the district.[1]

1.the study of Planning Department, 1997)

***3. active to passive ratio***

The demand for passive recreation space is far more than the active recreation space, but most of the open space in Mong Kok is for active use. They are not match the demand.


open space study

## 3.1 district level histroy with railway line 3.1.2

**intention**

The study would consider the time dimension first.

In order to investigate how the station affect the city, the history of Mong Kok and its station would be traced back for study. From this study, the urban fabric would be shown before and after the appearance of the railway station.Thats would induce the influence of the appearance of the station to the city.

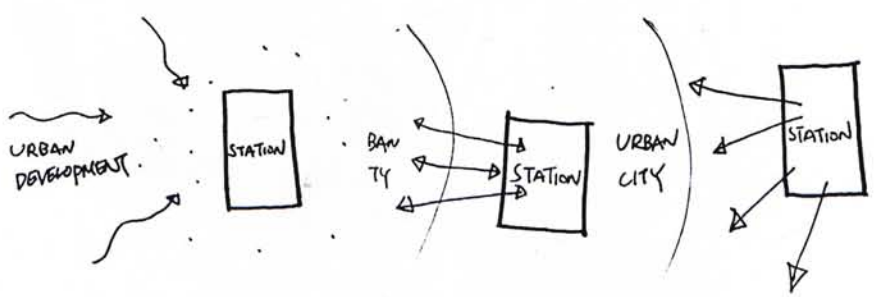
**impact of the station**

The early urban development in Mong Kok was actually started from the Tsim Sha Tsui. After the station was introduced in the rural area of Mong Kok, the urban fabric developed towards the station with the economic and social reasons.

After the urban fabric was completed surround the station, due to the insufficient spatial and movement requirements, the Mong Kok station had a redevelopment in 80's which gave another impact to the existing urban fabric.

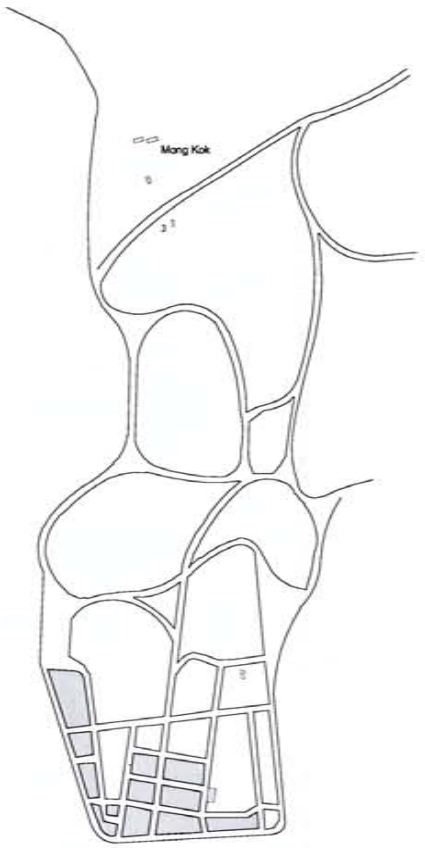
**exploration**

then what is the future change of the station in order to react to the fabric?




relationship between inner city and station

1863




- only Tsim Sha Tsui had little urban development
- Mong Kok is only a farmland

1902


- urban development extended from Tsim Sha Tsui along the coast
- urban development with grid pattern

1924


- railway was introduced in 1910 with single track
- Yau Ma Ti (Mong Kok) station was built in rural area where far away form the urban city

3.1 **district level** histroy with railway line

1947


- Mong Kok's urban setting extended toward the station

3.1.2

1990


- urban fabric was matural surround the station
- Mong Kok station was redeveloped in 80's, which gave another layer of impact to the city

building mass

path for people

path for vehicle

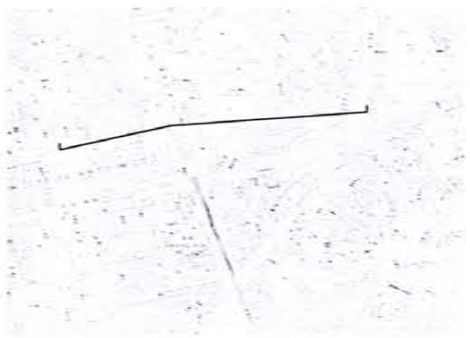
3.1 **district level** urban sections

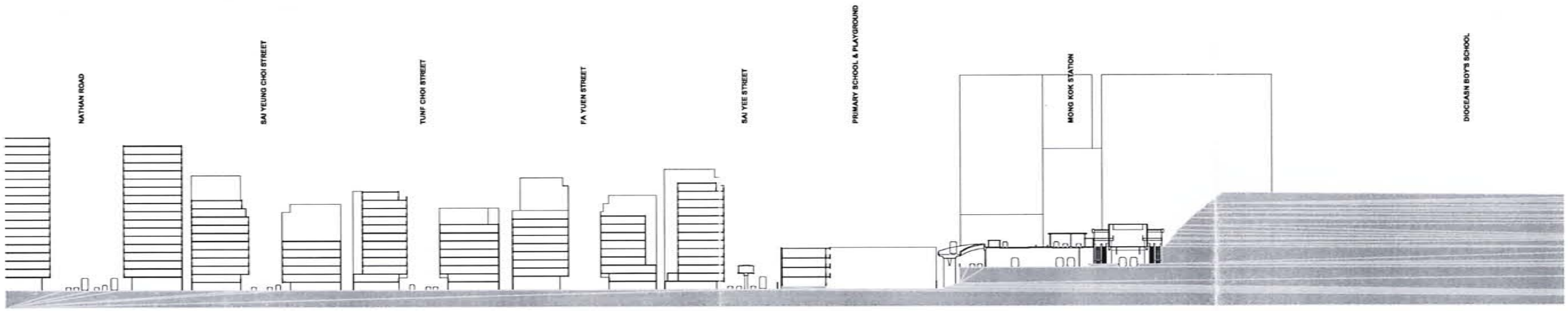
3.1.4

**intention** Series of urban sections would be studied. The railway system would be included in these urban sections.

They help to get into the site immediately. The relationship between the city and the urban facility (station) would be discovered. The buildings mass and the landscape of the city could be revealed in these sections, which can help to demonstration the sptial and level configuration of the railway system.

**exploratoin** Is there any opportunities on the level difference between the street and the station?





## 3.2 working area level defining area 3.2.1

**introduction**

The railway station as a part of city has uncertain boundaries. Then, where does the border lie between the station district and the rest of the city?

The influence of a railway station may go far beyond its immediate surroundings. With the walkable radius approach, the railway station area is identifiied as the circular area readiating from the railway station that is considered "walkable "distance. This is, for instance, the solution chosen by Munck Mortier (1996), who adopts a walkable radius of 500m.[1]

1. Cities on rails - redevelopment of railway station area Luca Bertolini and Tejo Spit

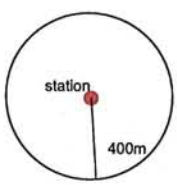
**defined area**

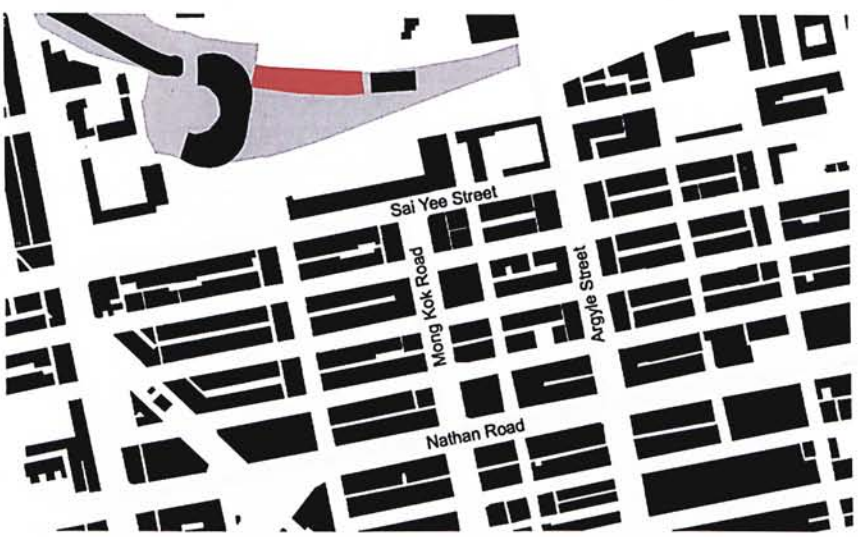
While in Hong Kok, according to the final report of Metroplan Study,[2] in order to encourage more people to use the railway, it is essential to improve the conditions for pedestrian movement for access to and from rail stations. In general, 400m is considered a reasonable walk-in catchment for a rail station in Metro. Beyond about 400m, the number of people prepared to walk to a station tails off and passengers either tend to use bus or minibus feeder services or use direct buses to their destinations.

2. Final Report - the Stage II Study on Review of Metroplan and the Kowloon Density Study Review Planning Department

Thus, the following area with around 400m from the station to Nathan Road in Mong Kok is use for the study.

existing building
station
station podium

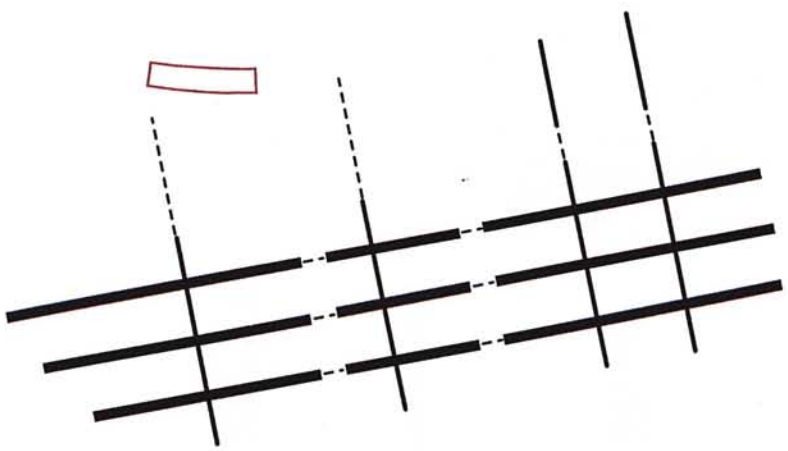


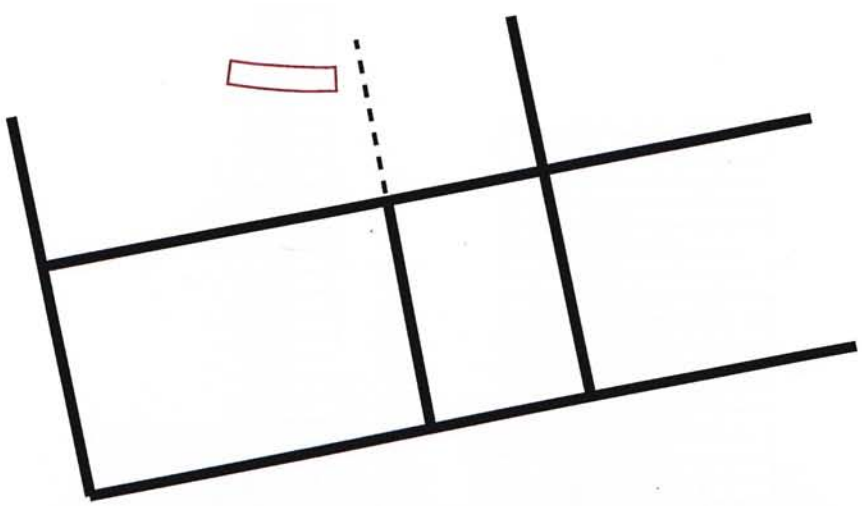
## 3.2 working area level line / hidden line

3.2.2

streets

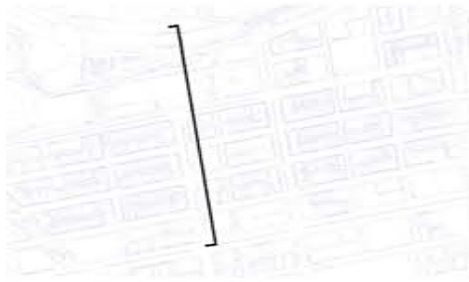


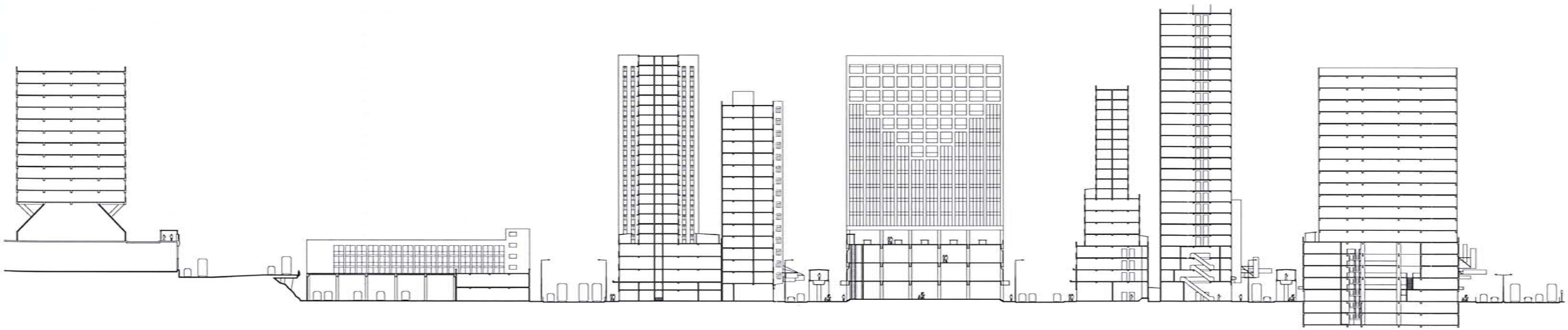
main traffic road (edge)



## 3.2 working area level sections

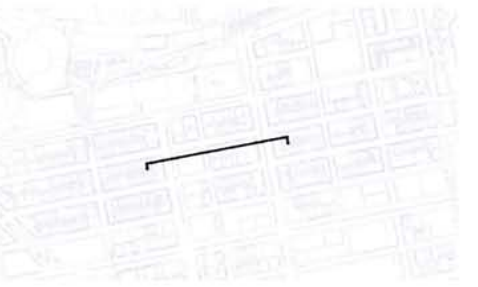
3.2.3

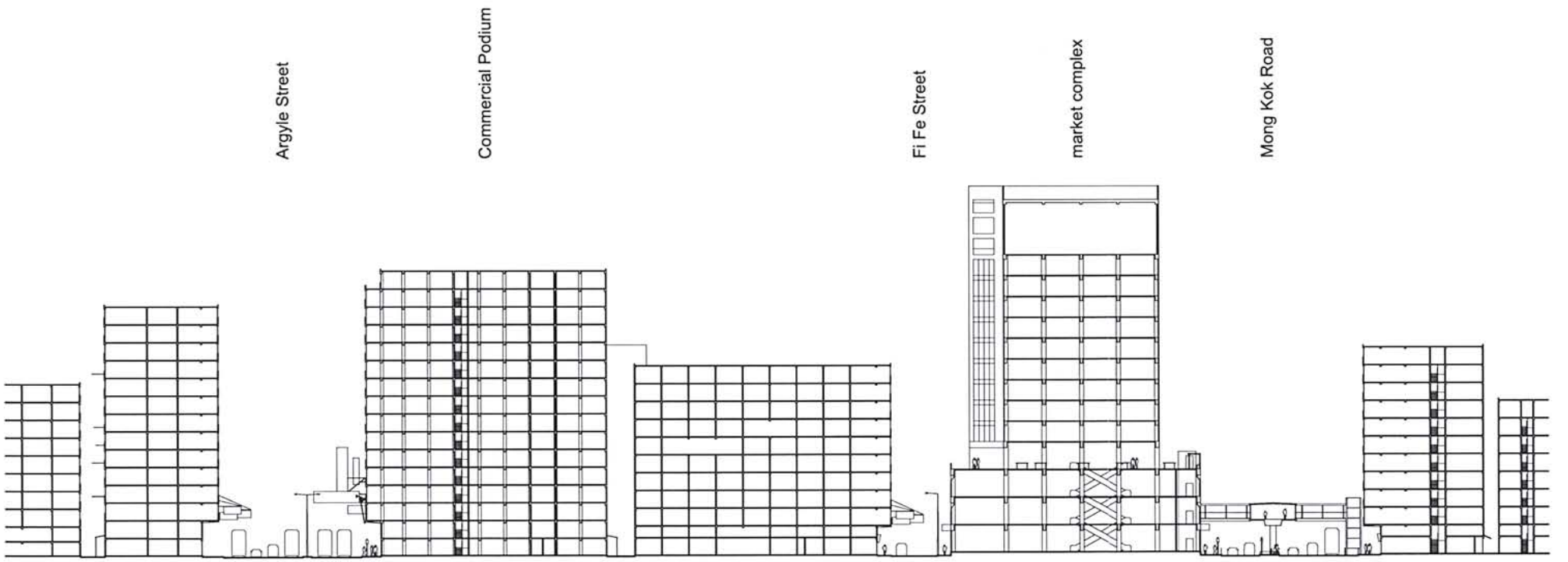




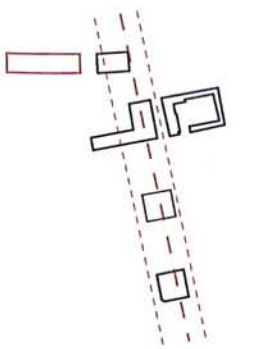
## 3.2 working area level sections

3.2.3

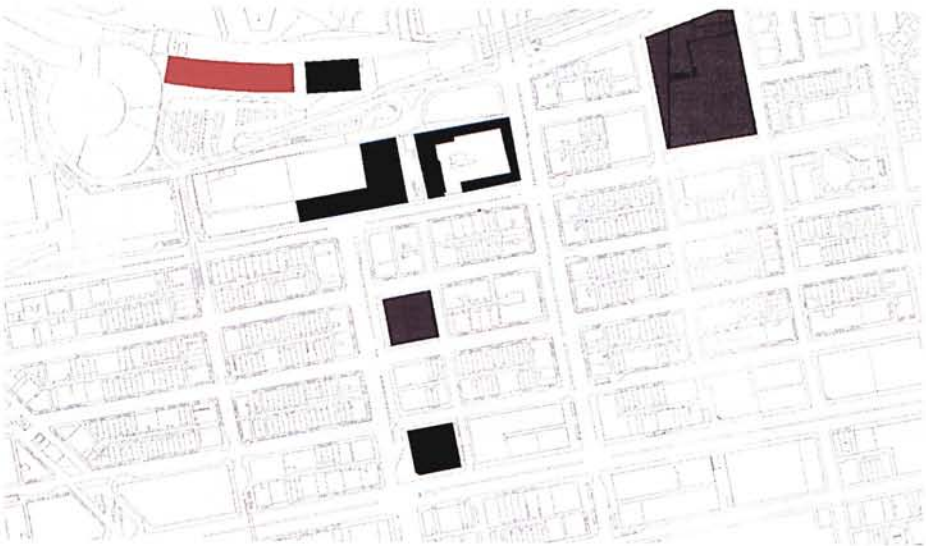




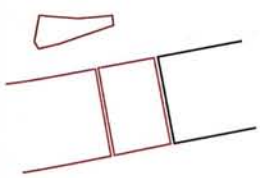
**communal buildings**



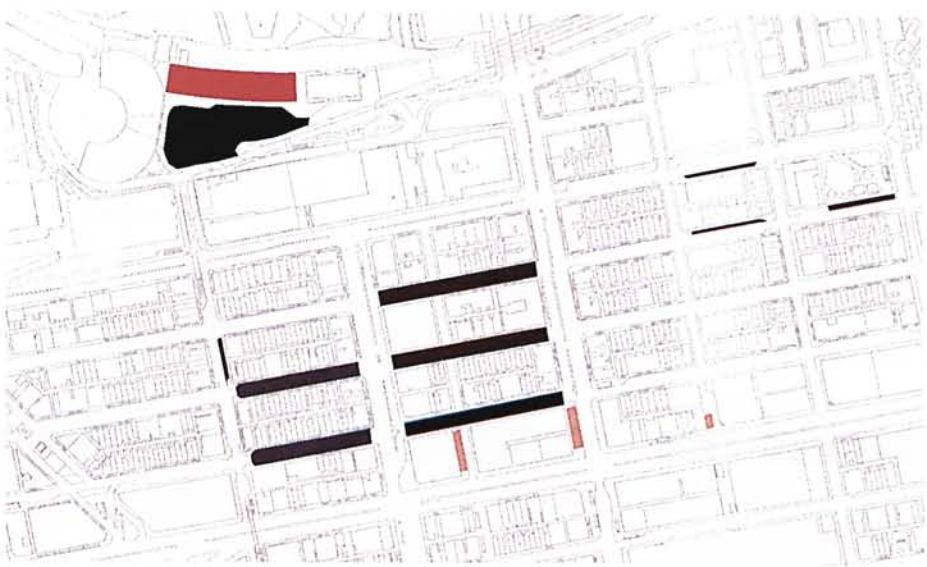
government
station
community facilities



**public transportation**

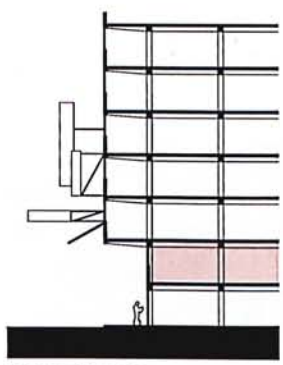


kcrc station
mtr entrance
daytime minibus
overnight minibus
bus and taxi



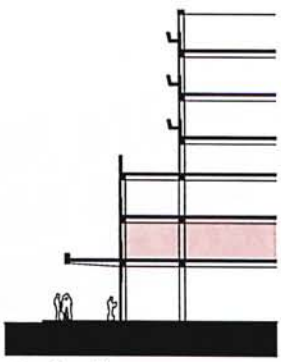
**upper floor layer - 2/f +3.5m**

**building type 1**



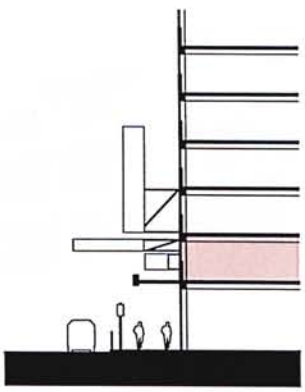
shops in mezzanine

**building type 2**



shops in podium

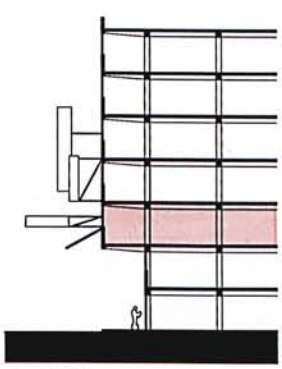
**building type 3**



shops in 2/f

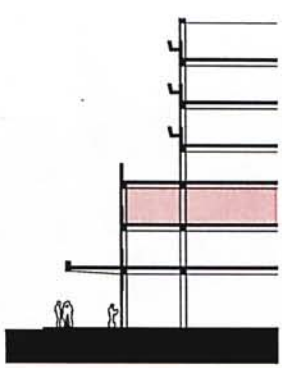
**upper floor layer - 3/f +6.5m**

**building type 1**



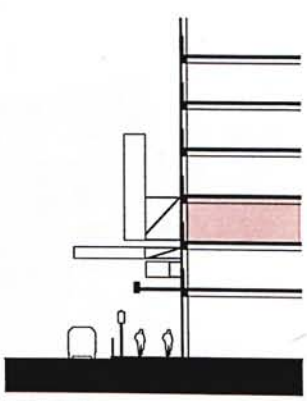
shops in 3/f

**building type 2**



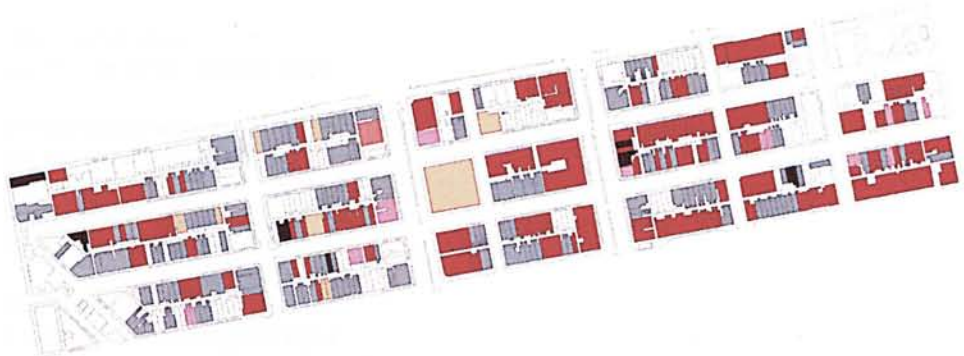
shops in podium

**building type 3**



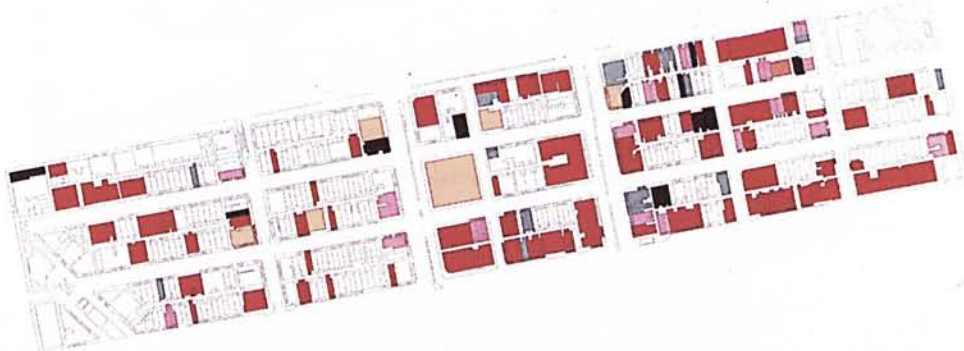
shops in 3/f

**upper floor layer - 2/f +3.5m**



commercial activites
community used
store / abandoned
aparthotel
office

**upper floor layer - 3/f +6.5m**



commercial activities
community used
store / abandoned
aparthotel
office
residential

## 3.3 street level introduction 3.3.1

One of the major urban space (chararcteristics) in Mong Kok is street. Traveling in the streets is the most important urban activities in Mong Kok. Indeed, the grid street system, the programs and the spatial organization create different kinds of street.There are four types of streets in Mong Kok:

*1) open market street*
e.g. Fa Yuen Street, Woman Street

*2) pedestrianized street*
e.g. Sai Yeung Choi Street

*3) typical street with slow traffic*
e.g. Fa Yuen Street (South)

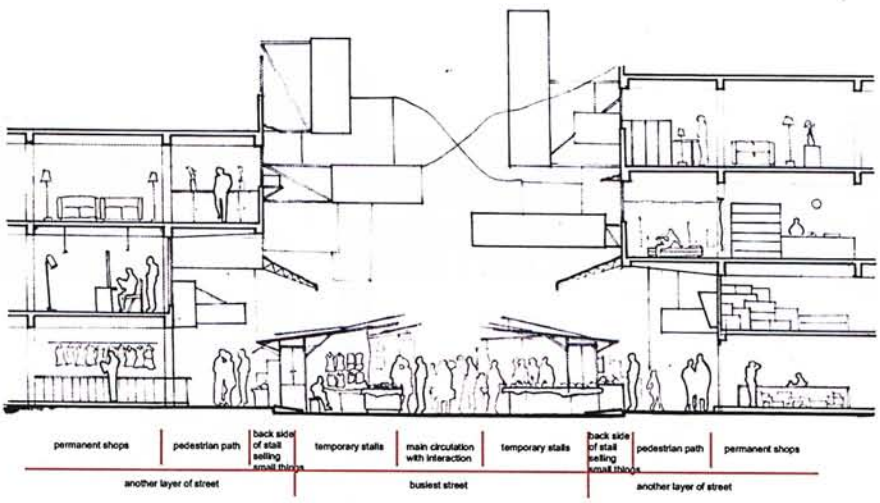
*4) main traffic road*
e.g. Nathan Road, Mong Kok Raod

In order to understand the characteristic of the urban space in Mong Kok and how people use the spaces, I tried to analysis them with the followings aspects:

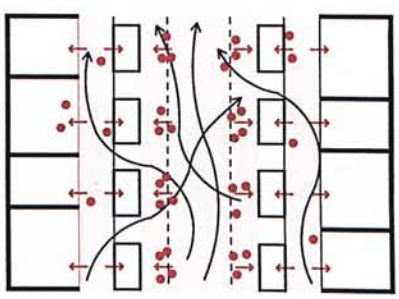
a) program
b) activities
c) density
d) movement
e) typical section

**section**

- divided into several layers
- middle part forms the busiest street with the two side stalls
- the pedestrian path also forms another street with the shops and stalls.




**diagram**



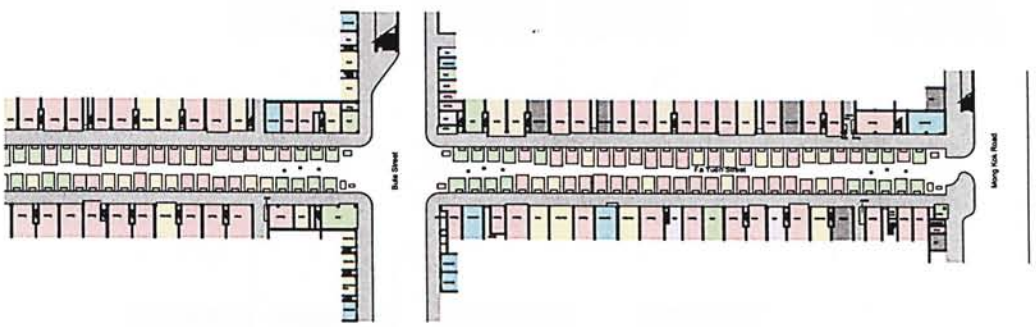
| | |
|---|---|
| place for gathering | high (one to one) |
| place for exchange | high (commercial) |
| place for movement | low |
| permeability | very high |
| variety of activities | shopping with gathering |

## 3.3 street level street study - open market street 3.3.2

**program**

- mainly selling clothing and fruit with localize price
- attracts lots of housewife to buy things and gathering

1:1000

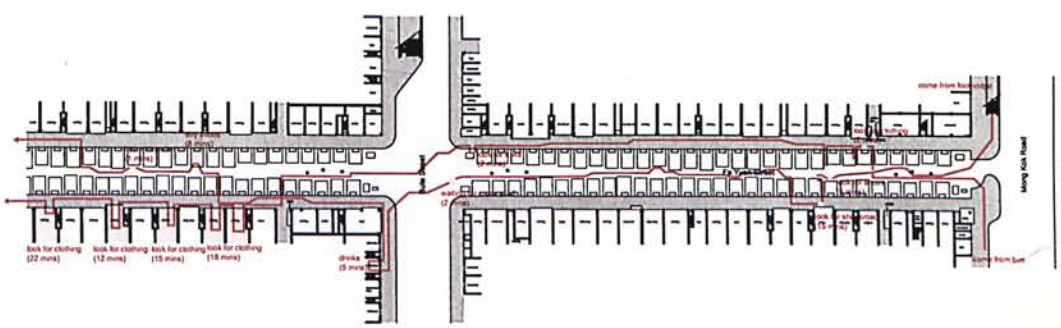



fashion
textile
food / drink / fruit
daily shop
restaurant
others

**movement**

- slow and unpredictable
- walk without target along the street

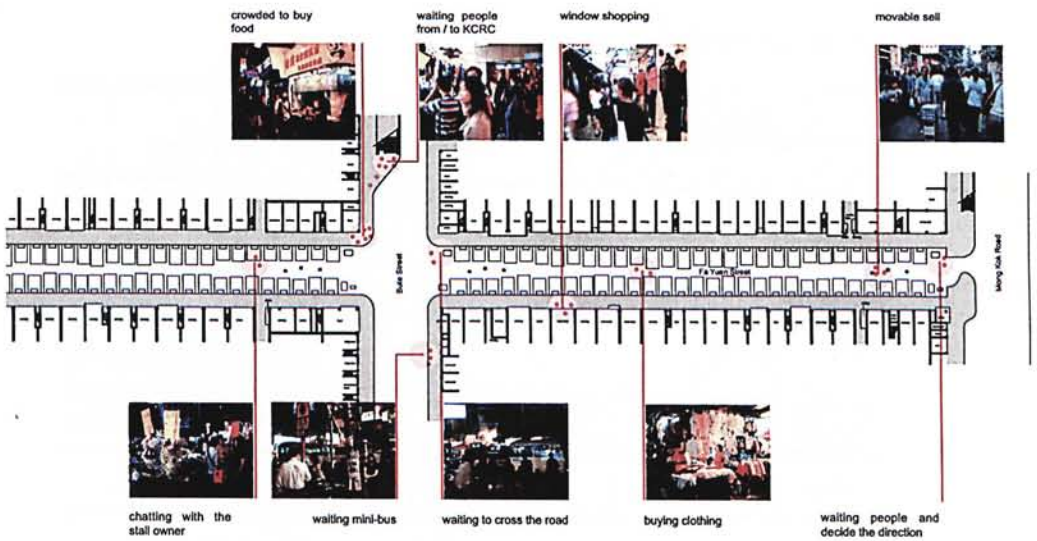
1:1000



**activities**

- chatting with the stall owner is the main activities
- waiting always happen in the intersection point (node)

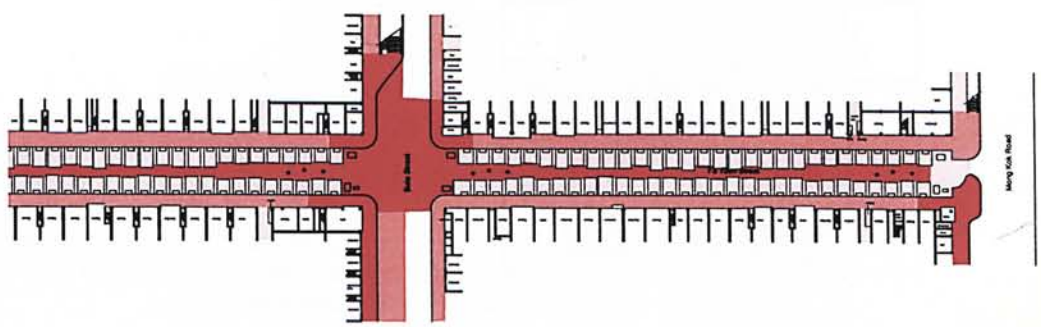
1:1000




**density of people**

- space in-between the stalls are the busiest place for people
- the intersection point is busy for interchange

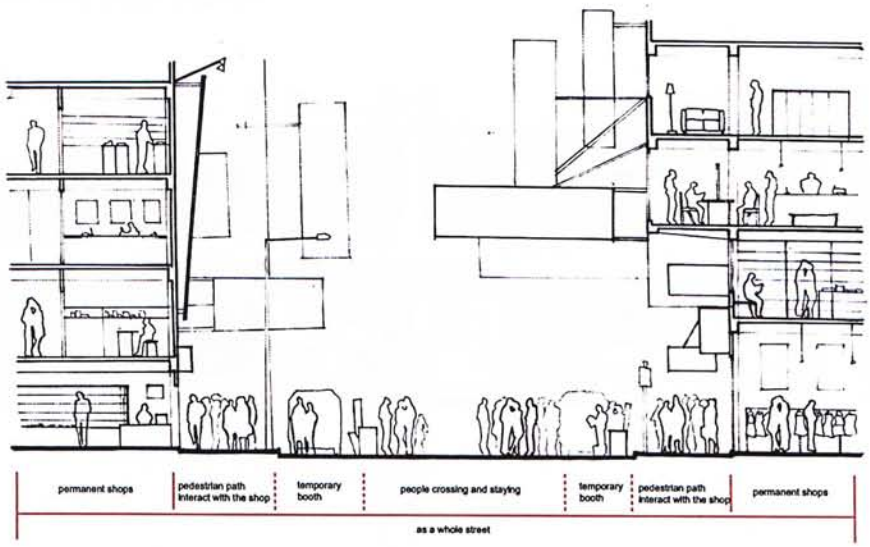
1:1000



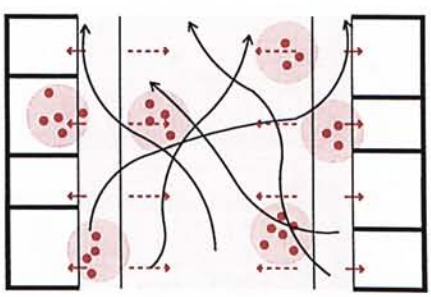

max
medium
low
very low

**section**

- the activities have been extended to the traffic road
- create a sense of place for people stay and interact




**diagram**

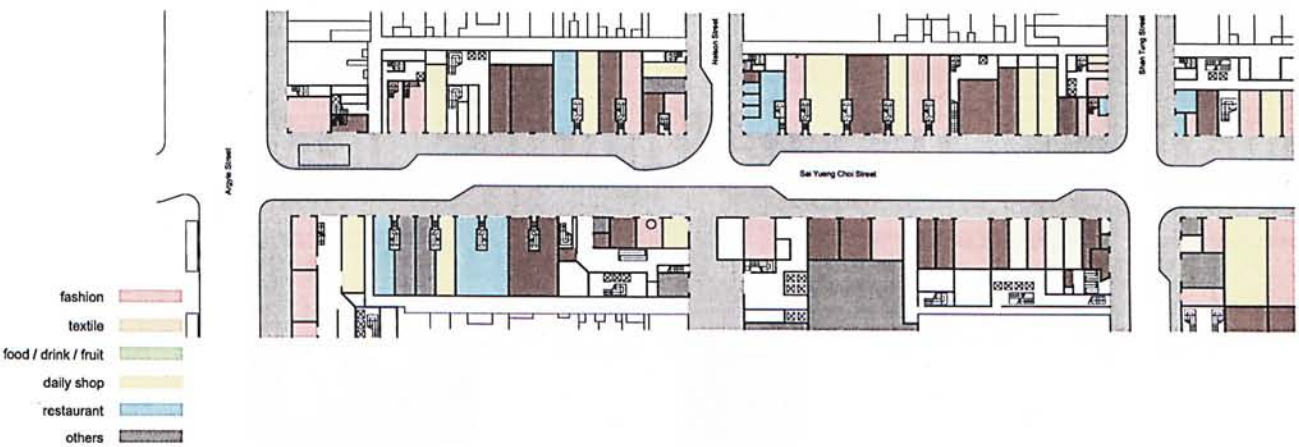


| | |
|---|---|
| place for gathering | high (random cluster) |
| place for exchange | high (commercial) |
| place for movement | low |
| permeability | very high |
| variety of activities | shopping with gathering / performance |

**program**

- large variety
- fashionable and temporary
- attract young people (outsider)

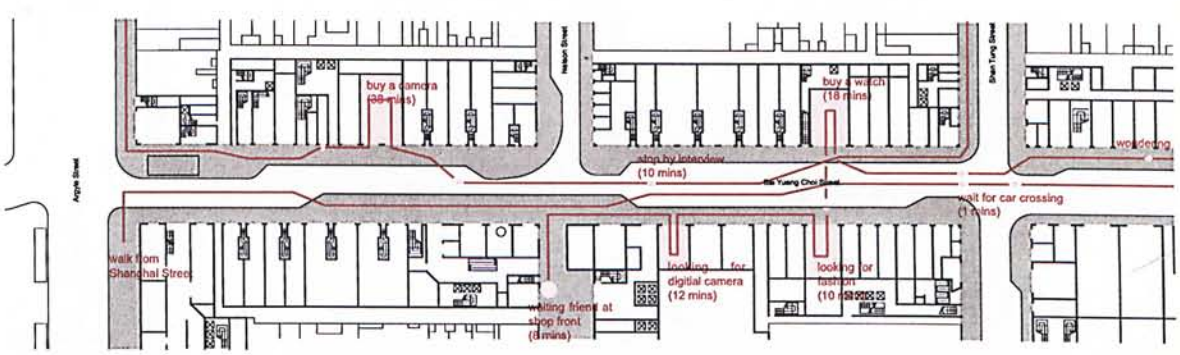
1:1000




**movement**

- movement of visitors follow the orignal pedestrian path
- start to walk randomly in the traffic road after the first part of the street

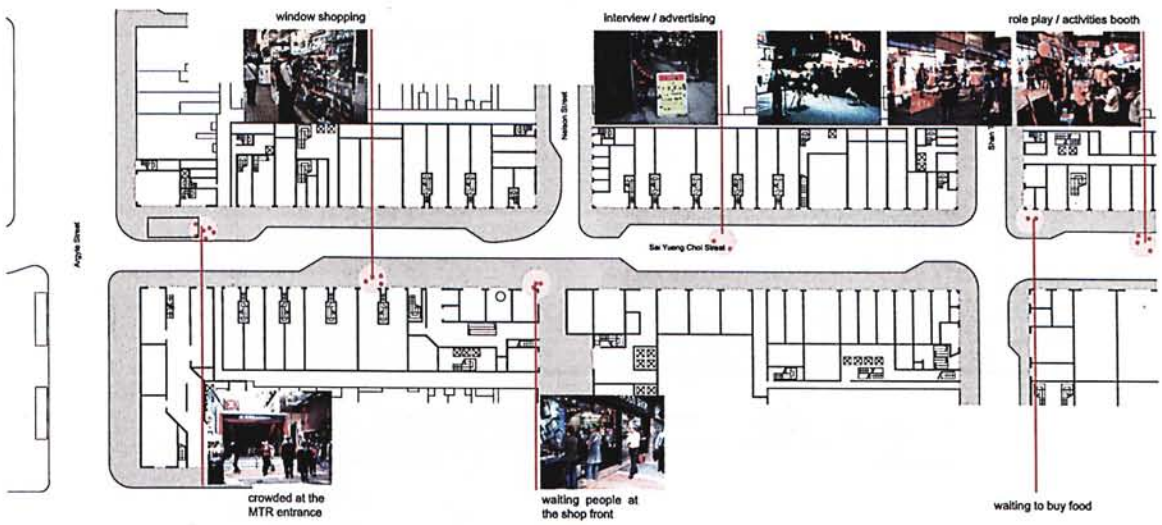
1:1000



**activities**

- commercial activities inside the shops
- some communal activities happen in the middle of the roads, e.g. interviewing, role play, debating.....
- sense of place in the street being created with the pedestrianlize policy

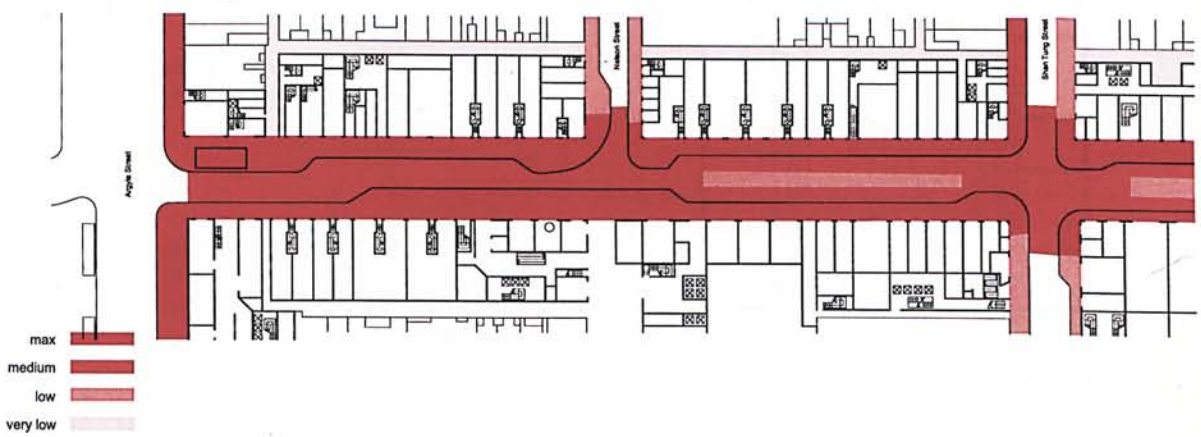
1:1000




**density of people**

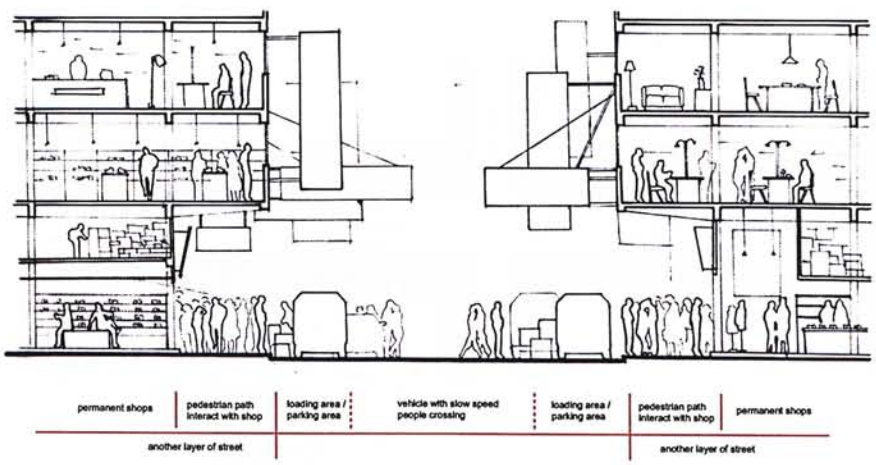
- pedestrian path always crowded within the time
- people start to diffuse to the pedestrianlize traffic road

1:1000



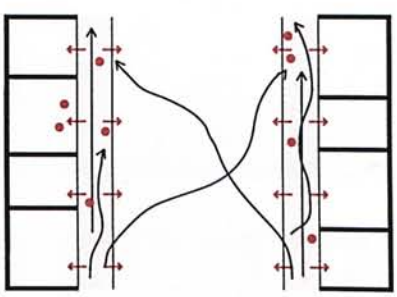
**section**

- activities happen in the pedestrian paths
- with tendncy to extend to the slow traffic road



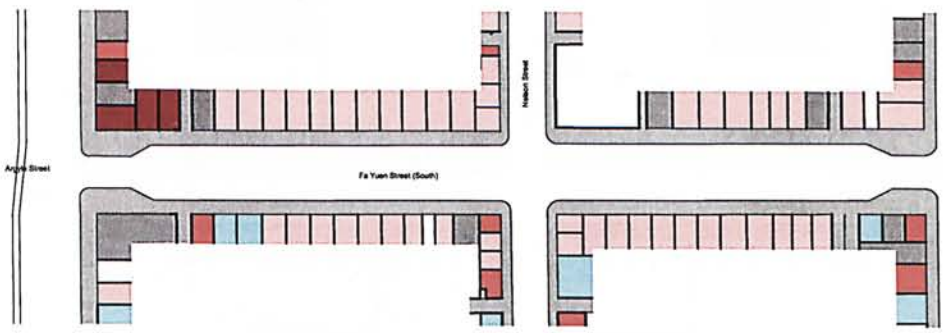

**diagram**

| | |
|---|---|
| place for gathering | medium |
| place for exchange | high (commercial)<br>high (transportation in area between Mong Kok Road and Argyle Street) |
| place for movement | high |
| permeability | high |
| variety of activities | shopping with little other activities |



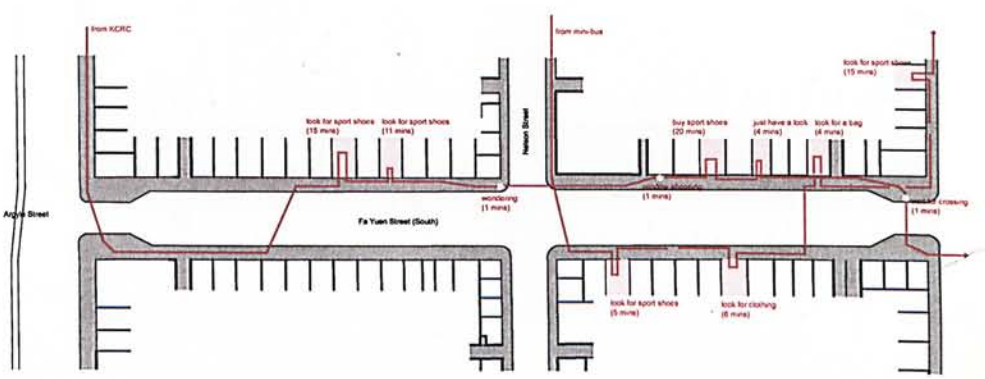
## 3.3 street level street study - street with slow traffic 3.3.2

**program** - similar shops, selling the same kind of goods 1:1000




fashion
food / drink / fruit
photo
restaurant
others

**movement** - have a particular type of goods to search (in this case mostly is sport dressing) 1:1000
- mostly, people would visit similar shops along the street to compare the price and search for their favorites

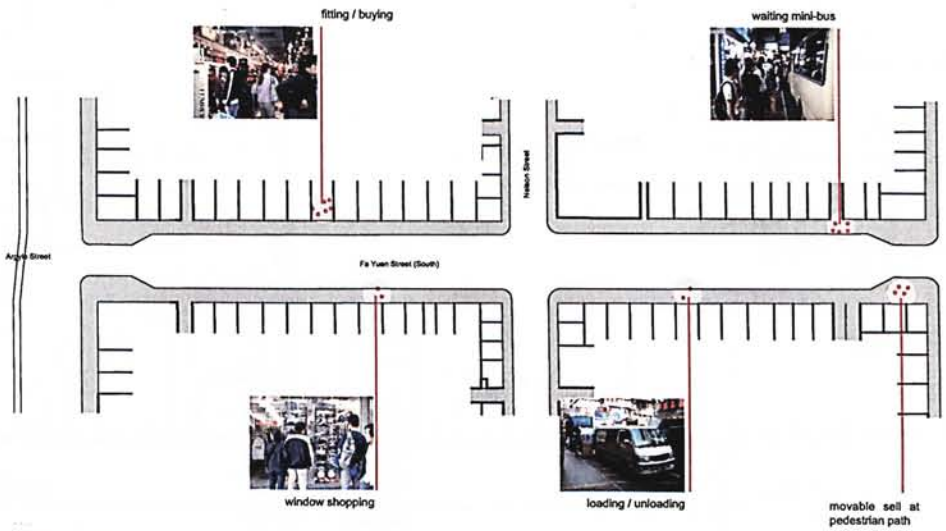


## 3.3 street level street study - street with slow traffic 3.3.2

**activities**

- shopping inside the shop or on the pedestrian paths is the main activities
- activities with traffic road (transportation interchange / loading) might randomly happen along the street

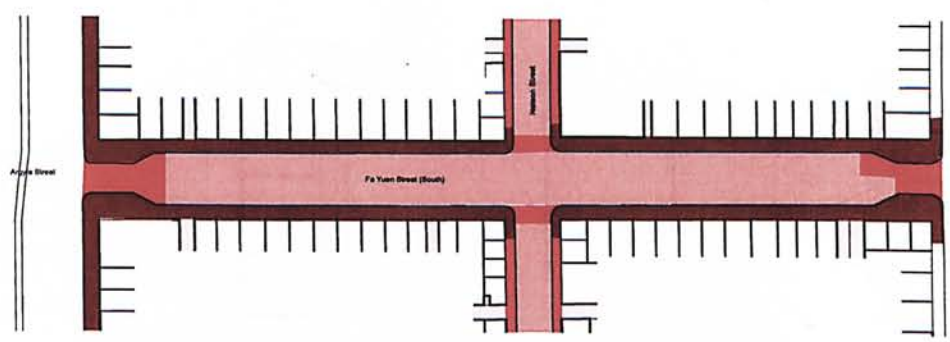
1:1000




**density of people**

- pedestrian paths have high people density, which allow people for window shopping and waiting.
- traffic road with slow current also have certain permeablity for people passing through

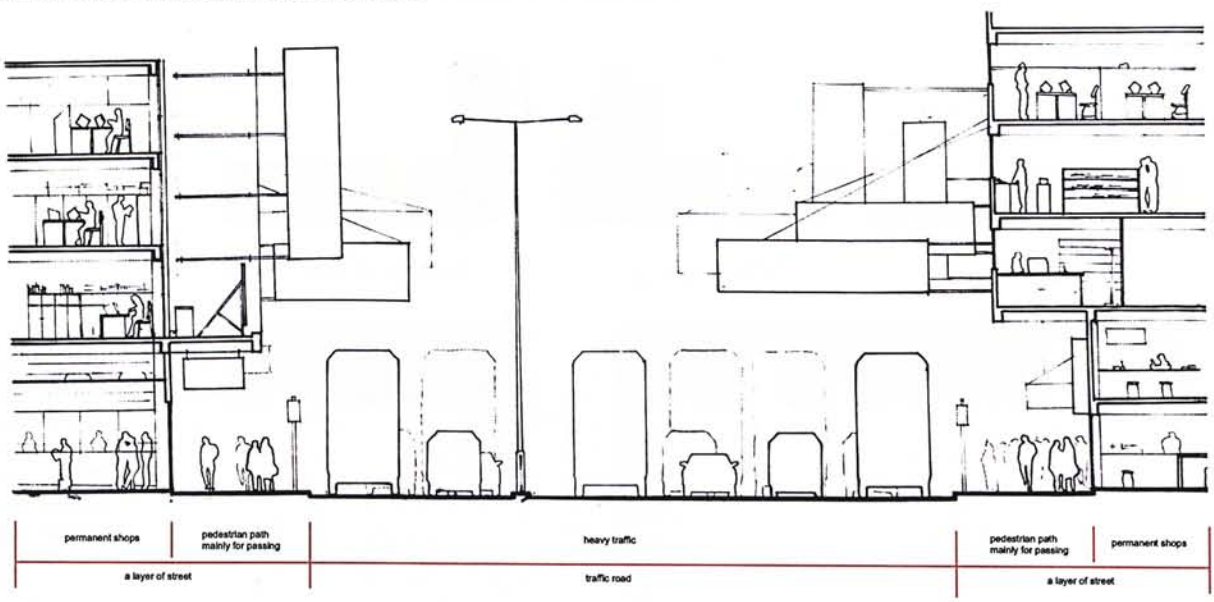
1:1000




max
medium
low
very low

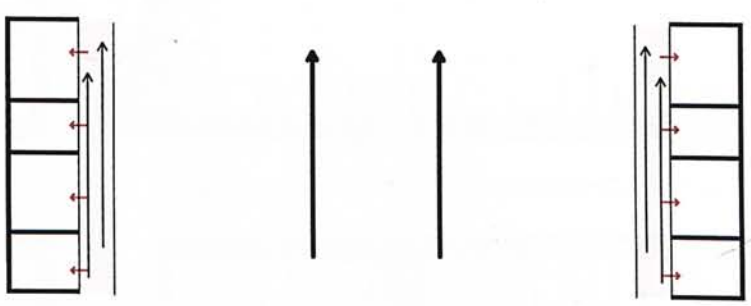
**section**

- activities happen in the pedestrian paths
- with tendncy to extend to the slow traffic road




**diagram**

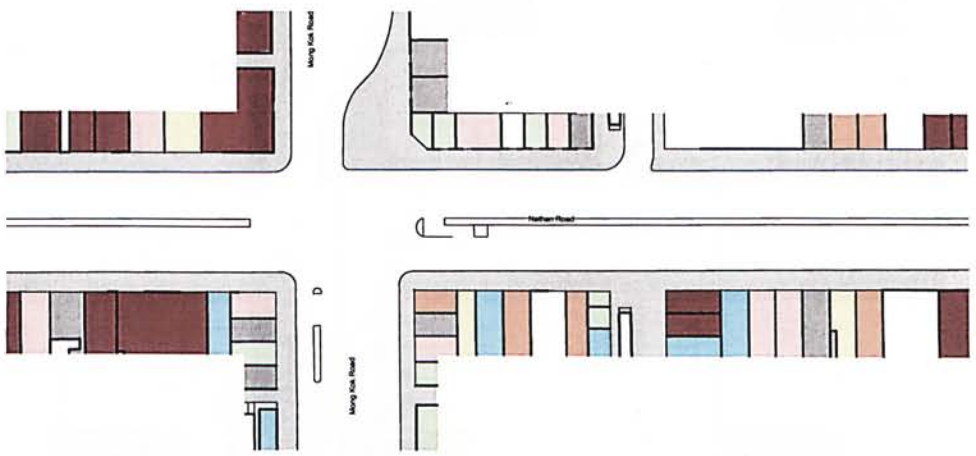
| | |
|---|---|
| place for gathering | none |
| place for exchange | low (commercial) |
| | high (transportation) |
| place for movement | high and fast |
| permeability | low |
| variety of activities | mainly transition |



**program**

- indoor domain program (e.g. banking and financial)
- unpleasant environment created by the busy traffic

1:1000

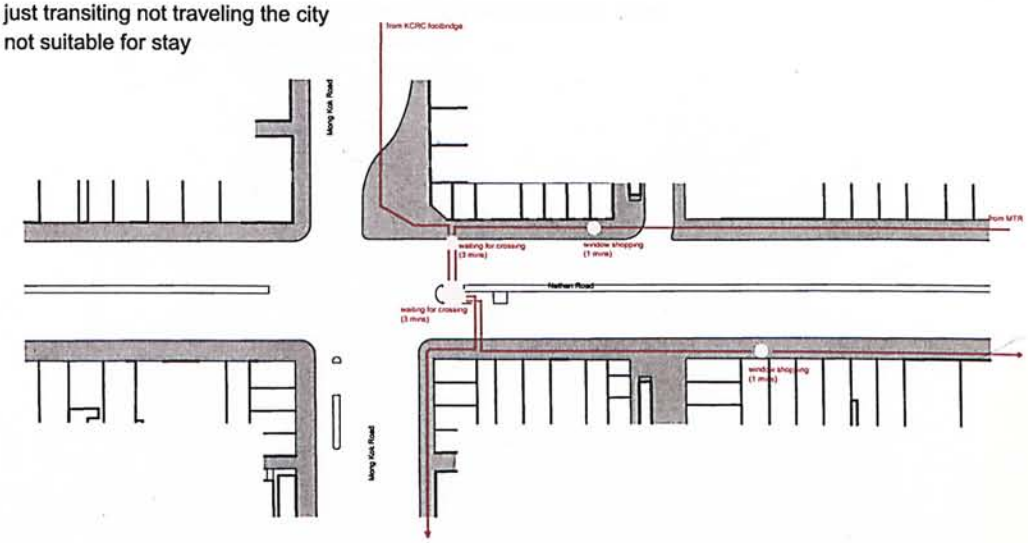



bank / financial
fashion
daily shop
food / drink / fruit
jewellry
restaurant
others

**movement**

- fast movement,
- just transiting not traveling the city
- not suitable for stay

1:1000

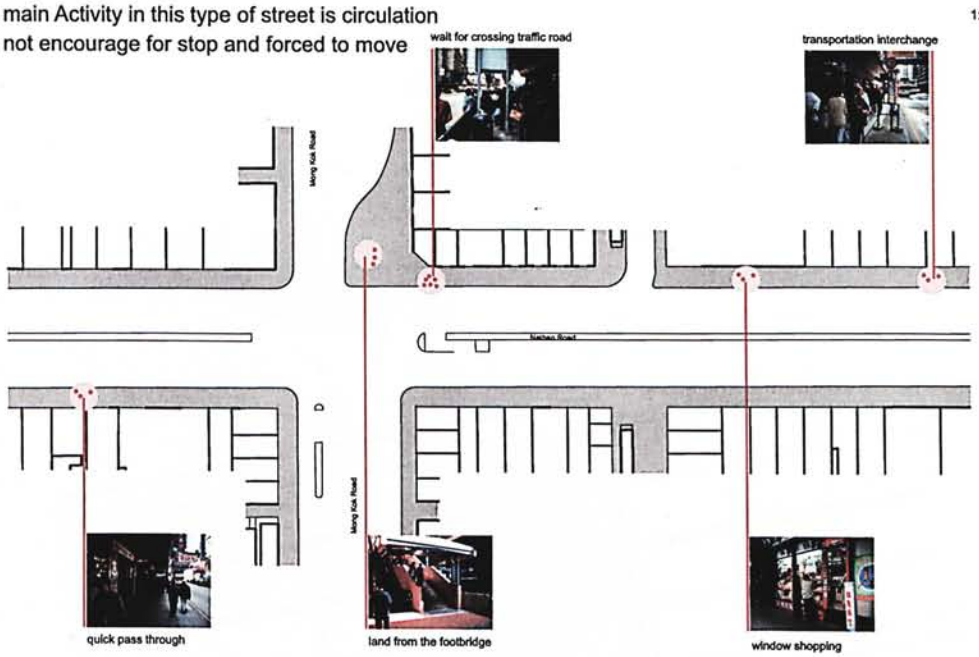


3.3 **street level** **street study - main traffic road** 3.3.2

**activities**

- main Activity in this type of street is circulation
- not encourage for stop and forced to move

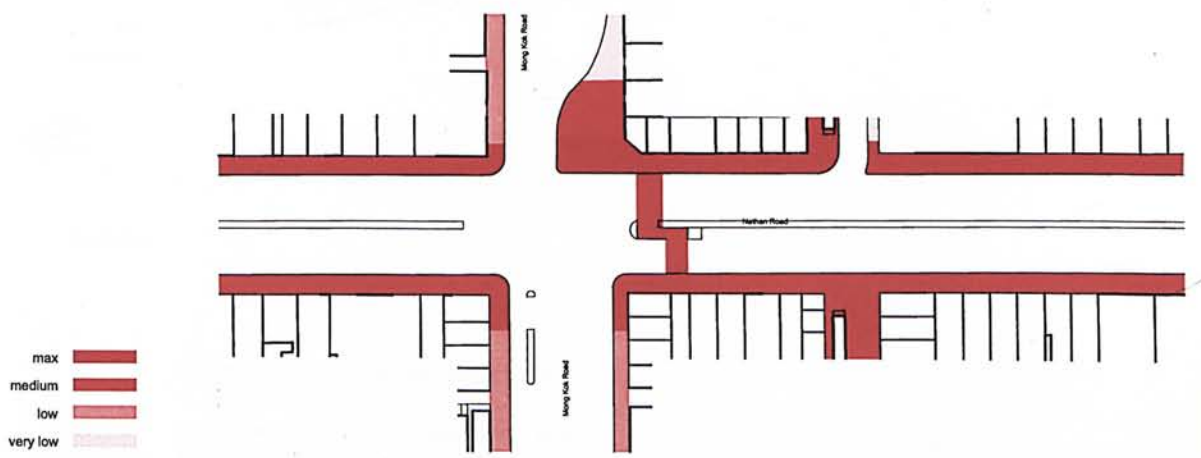
1:1000




**density of people**

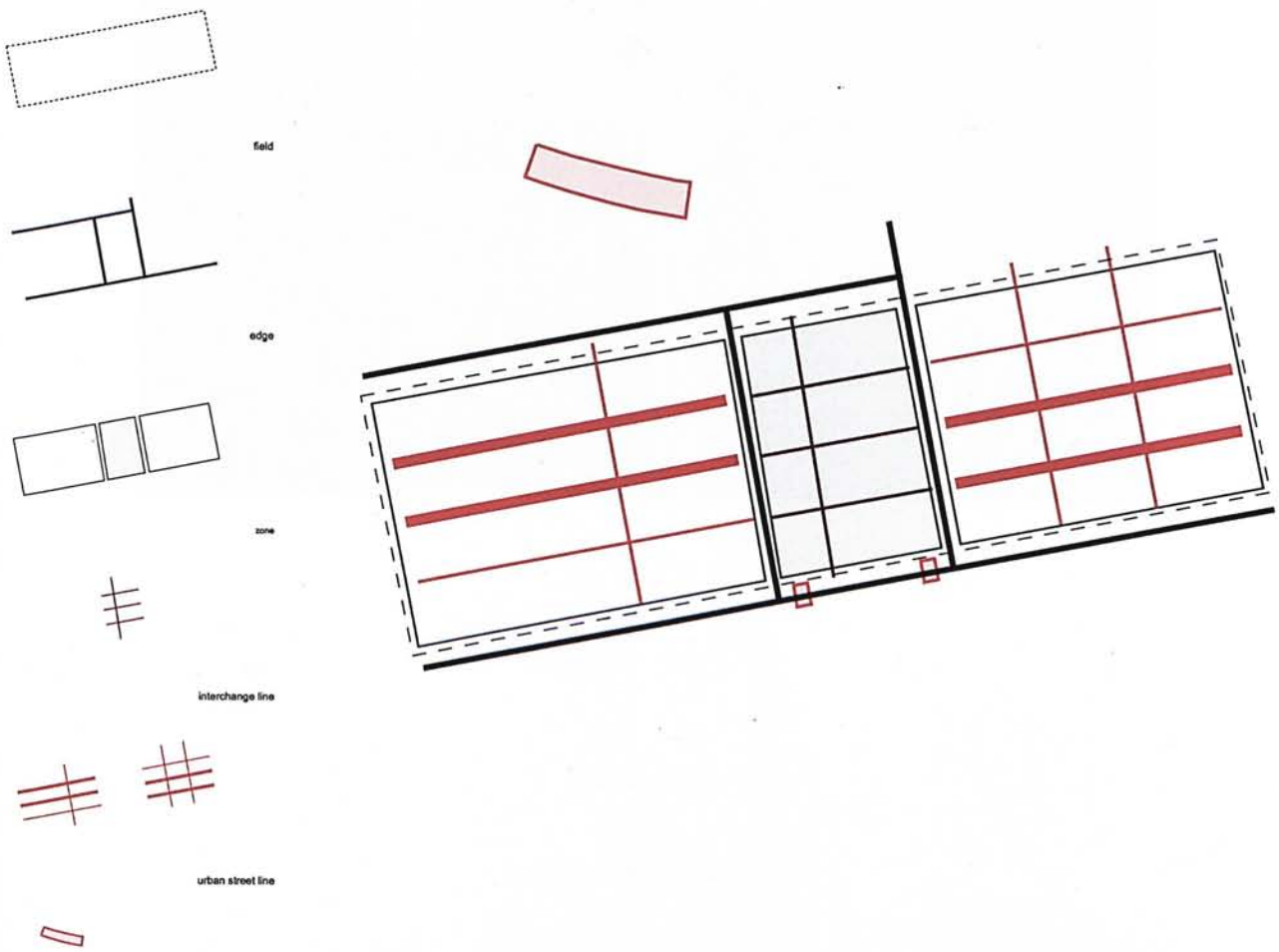
- pedestrain path become the main circulation space
- busy traffic road become edge cutting through the fabric into two sides
- the opposite side (eastern part) is less crowded

1:1000



## 3.4 summary

**Issue generated** overall site diagram




Discontinuous of urban life (street activities) in
1. movment,
2. exchange (goods and information) and
3. gathering in a rich street network

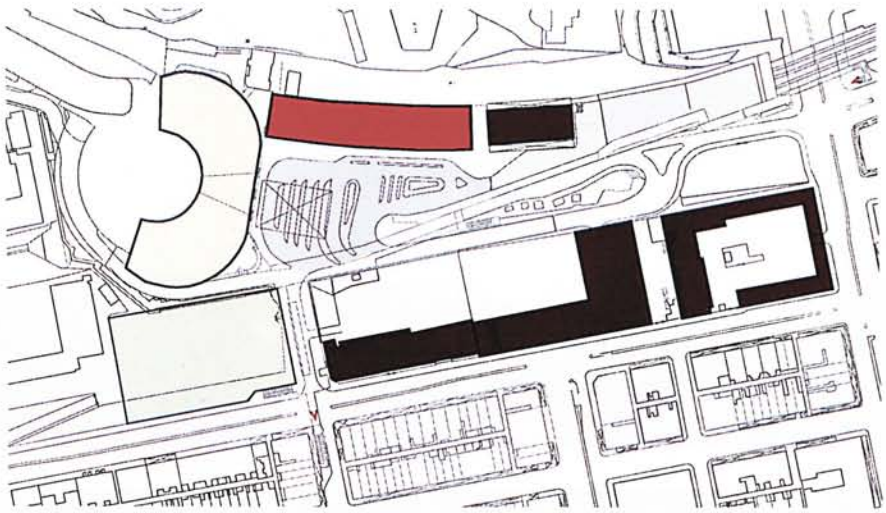

body of research

the station
(mong kok kcrc station)

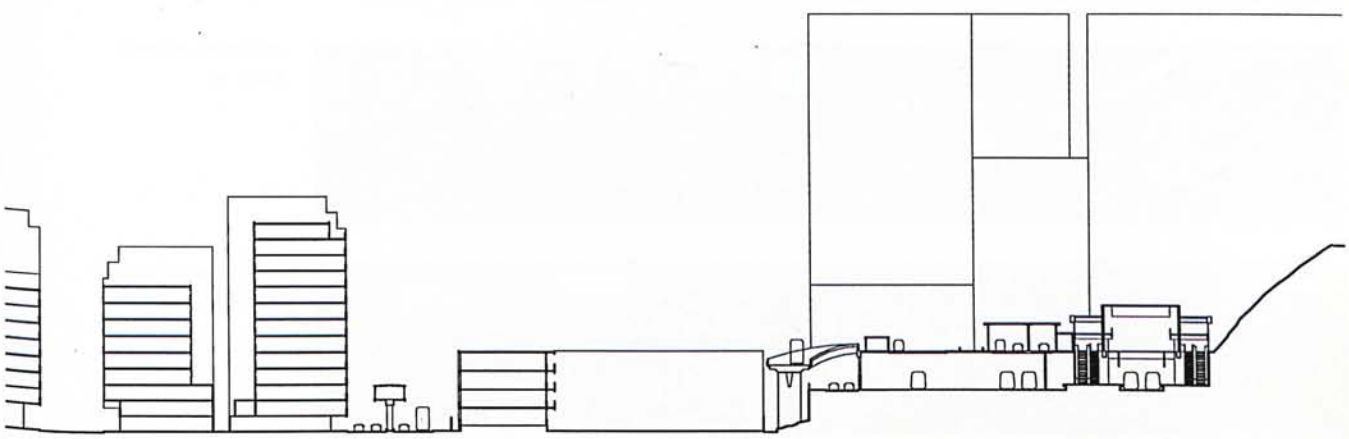
## 4.1 as a place spatial arrangement 4.1.1

**surrounding program**

- GIC zone become the access barrier
- most of the space is traffic dominant
- existing building as a back drop



kcrc railway station
government building
shopping mall
landscape
bus terminal / carpark



- at daytime, people just walk through the space, only transition
- at nightime, no activities happen, large amount of spaces are leftover

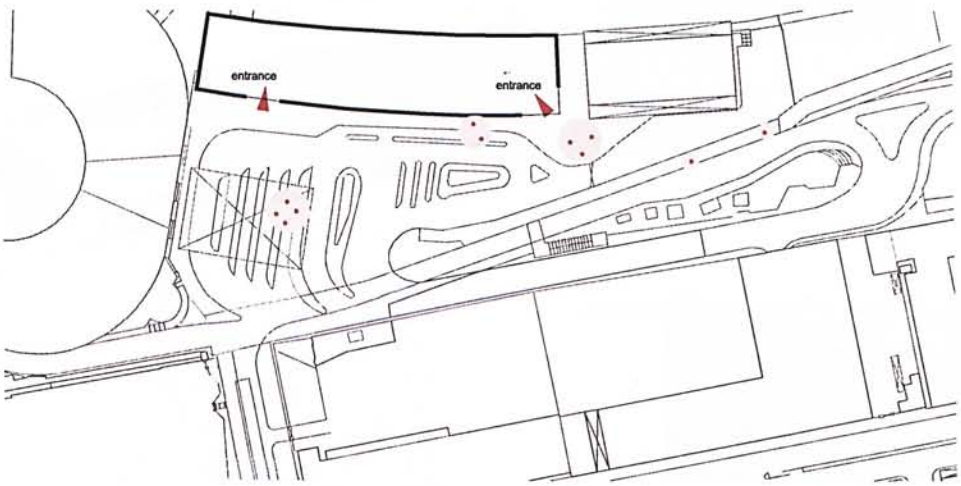
**car park at 1100**

**car part at 2300**

**station entrance at 1100**

**station entrance at 2300**

although the spatial setting and the environment is not good for the mass activities, there are some kinds of activities happen, it reflects that the tendency of mass gathering / activities is still present




left: activities location in station area

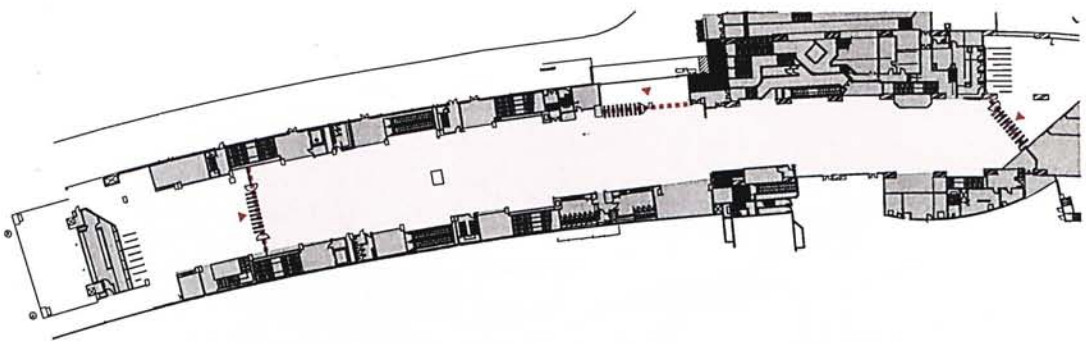
left, middle, right:
commercial activities near the entrance

left: sitting near the entrance
middle, right: commercial activities

## 4.2 as a machine spatial arrangement 4.2.1

**concourse plan**

- service zone locate on the perimeter of the station box, which affect the view to outside
- payment boundary affect the urban space

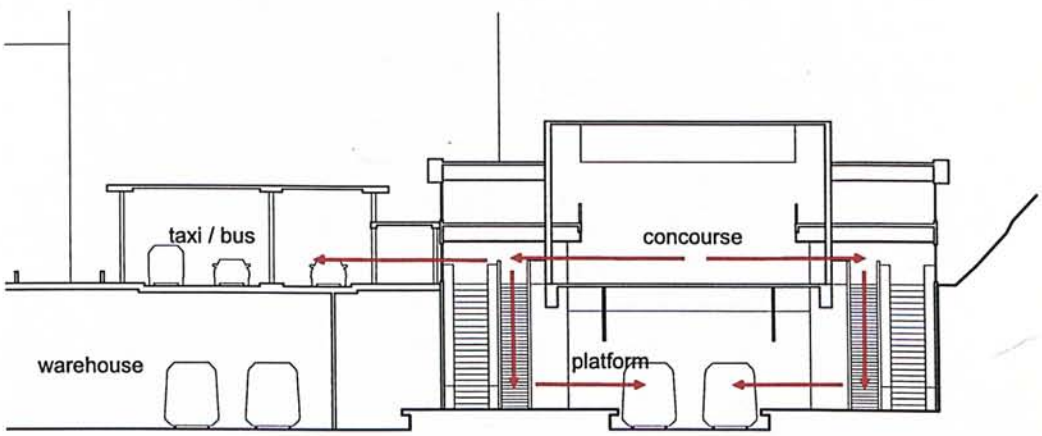



travelling area

service zone

payment boundary

**section**




concourse level

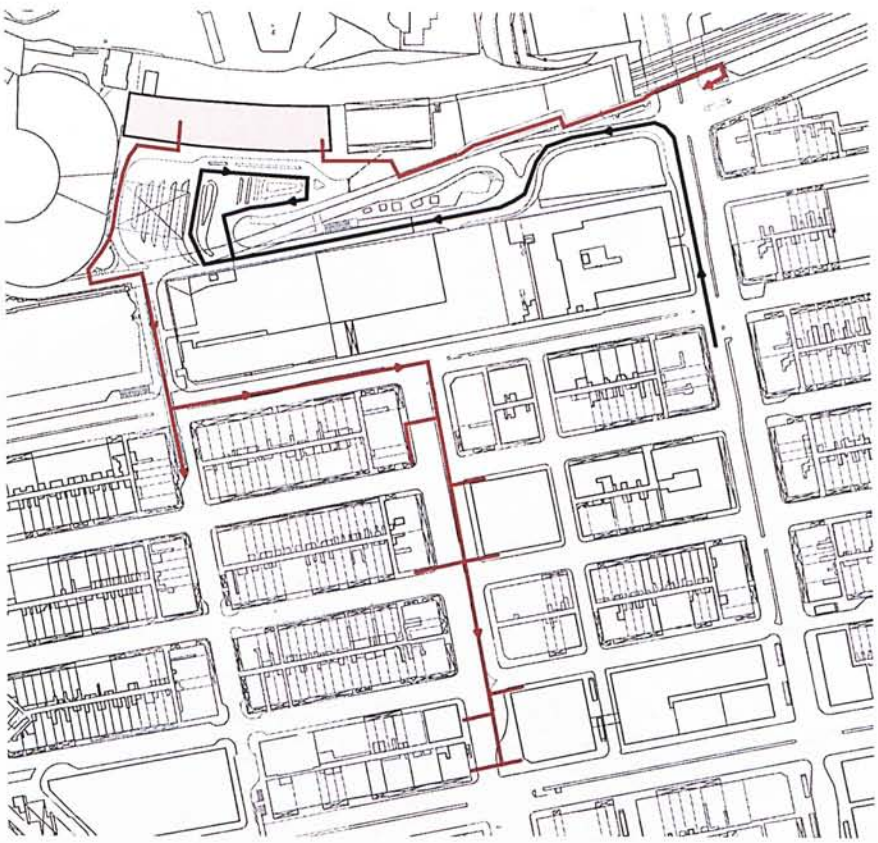
platform level

## 4.2 as a machine linkage

4.2.2

**movement**

- only 2 indirect rounts for people go to city
- large amount by traffic



people movement

vehicle movement

## 4.2 as a machine linkage

4.2.2

**footbridge**

- new construction, completed in 2003
- elevated footbridge become an expressway from kcrc station to mtr
- a reserved extension is limited by the Food and Environment Hygiene Department
- staircase, escalator and lifes become main landing method which create conflict in the ground level
- with nearly 10m wide, there is no activities
- it is terminated suddenly over the Nathan Road
- provide a jounery for experiencing / viewing Mong Kok
- commercial opportunities induced in the surrounding buildings

extension terminated

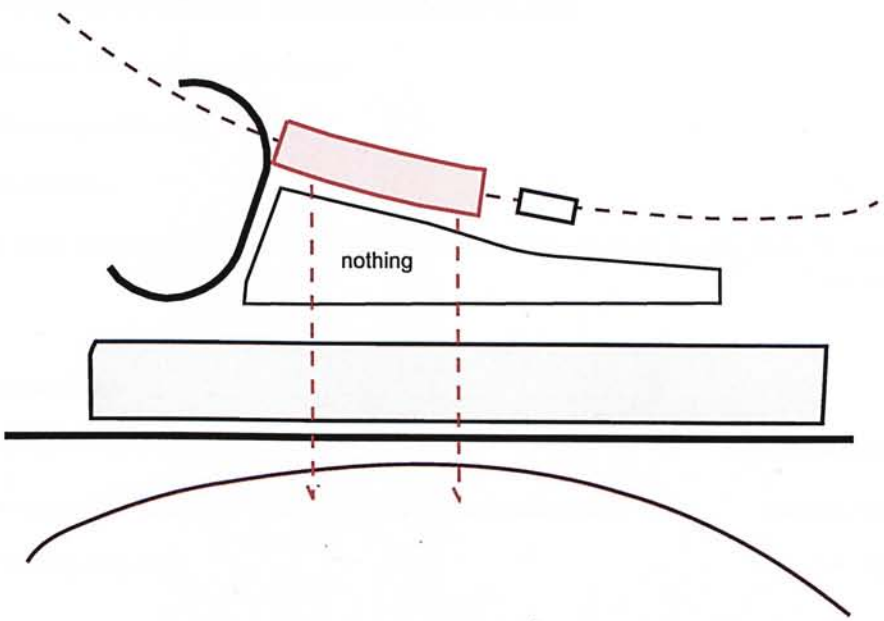
10m wide expressway

viewing platform

## 4.3 summary

**issue generated**

- as mass magnet, no activities can be generate for mass gathering and mass converging
- could not reflect the image of Mong Kok
- isolated from the city centre
- the mode of connection between the station and the city




diagram

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ARCHITECTURE I CUHK I 2003-2004

# FINAL THESIS REPORT
# PART C

student: chan chi chung I instructor: yuet tsang-chi

urban relief -
a greenery journey in mong kok
(re-connect the station and the city fabric)

design process

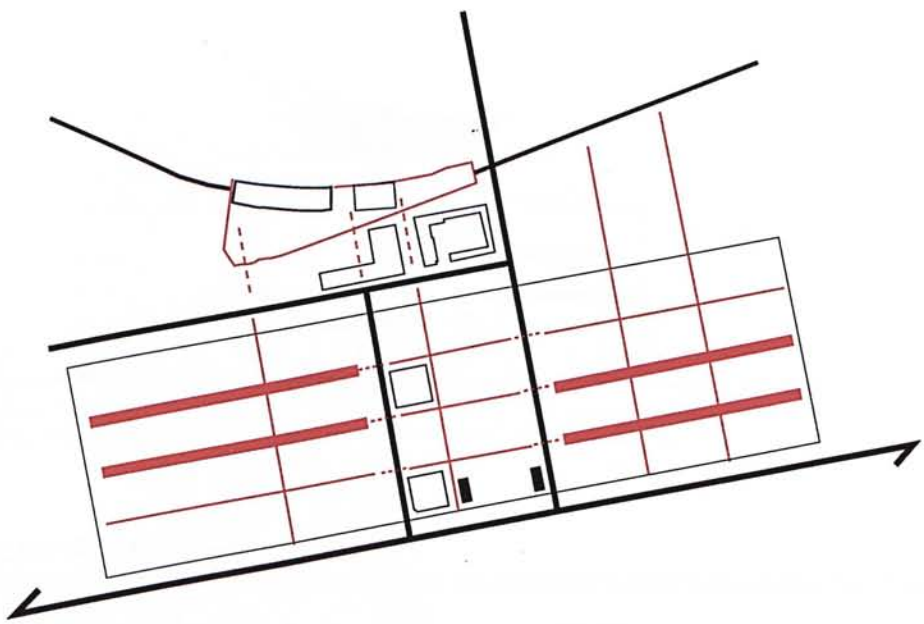
## content

design process

conceptual studies

## 6.1 research summary

left: summarized diagram of the thesis reserach



**summary**

As the research is separated into two parts, with the node-place perspective, the findings would be concluded together to form the core issue and the concept of the thesis.

The above diagram summarizes the whole research which describing the Mong Kok context and the hidden force of Mong Kok.

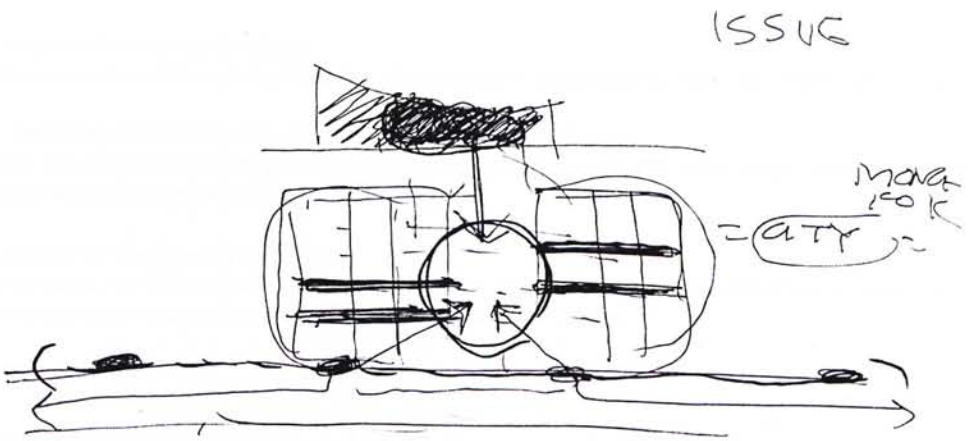
Mong Kok is a network of streets containing several important elements, it is also a field of movement and urban life. However, from the railway station and the city, there is discontinuous on movement and urban life created by the traffic road and the GIC zone.

**thematic issue**

Thus, by exploring a new type of urban space (new type of street) in Mong Kok, to re-integrating the existing Mong Kok railway station into the existing urban centre according to the existing city fabric. So that, people would experience the urban life when traveling from the railway station tothe city.

## 6.1 research summary

general design concept diagram




**design goals**

***1. new kind of urban space (interface)***

- introduce a new kind of urban space (interface) in the middle part in order to re-complete the network of Mong Kok and the station

***2. re-connect the existing fabric and urban life in Mong Kok***

- to re-weaving the existing fabric and the station, so that the urban life and movement can be connected through the station to the city

***3. create a mass gathering place in Mong Kok***

- lack of mass gathering place in Mong Kok, make use of the station to re-provide that urban space to community

***4. increase the imageability of the station***

- as the entrance gate of a city, the station should be expressed the image of the city, so that the community could be emphasized

## 6.2 strategy testing — strategy approach 1 - elevated street network — 6.2.1

**position**

***1. elevated network***

as the station is in a higher level, the mode of connection should be a kind of elevated network, With the spatial limitation, it also help to reserve the existing street life in ground level

***2. reserve the existing buildings***

with no demolish of the existing buildings, but some parts of the buildings could be intervented for public use

1. refer to Part B , "spatial arrangement"

***3. transform the existing bus terminal and carpark to public use***

make use of the bus terminal and carpark in front of the station to form an urban stage, which can converging people and hold urban activities[1]

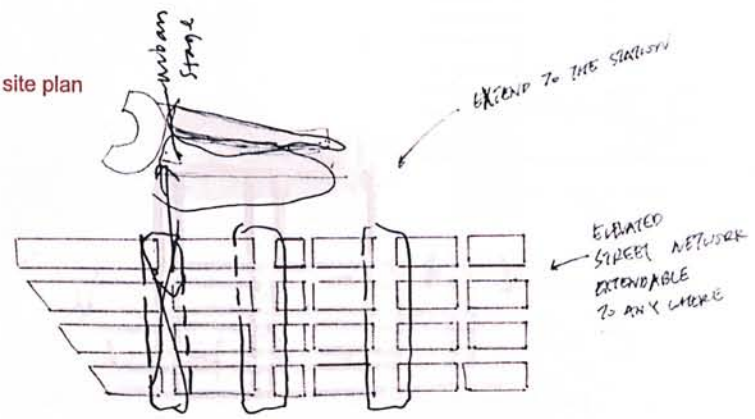
2. refer to Part B , "linkage"

***4. neglect of the existing footbridge***

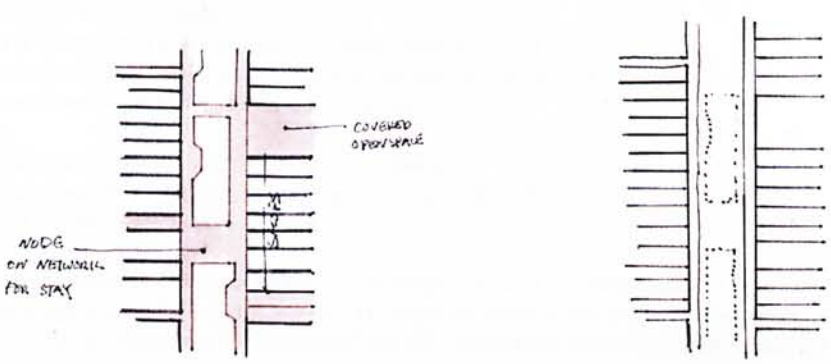
at this stage, the existing footbridge is assumed to be absent first with only the role of expressway[2], ao that a more appreciate connection network can be explored in the testing.

**design strategy**

proposed conceptual site plan




site strategy diagram

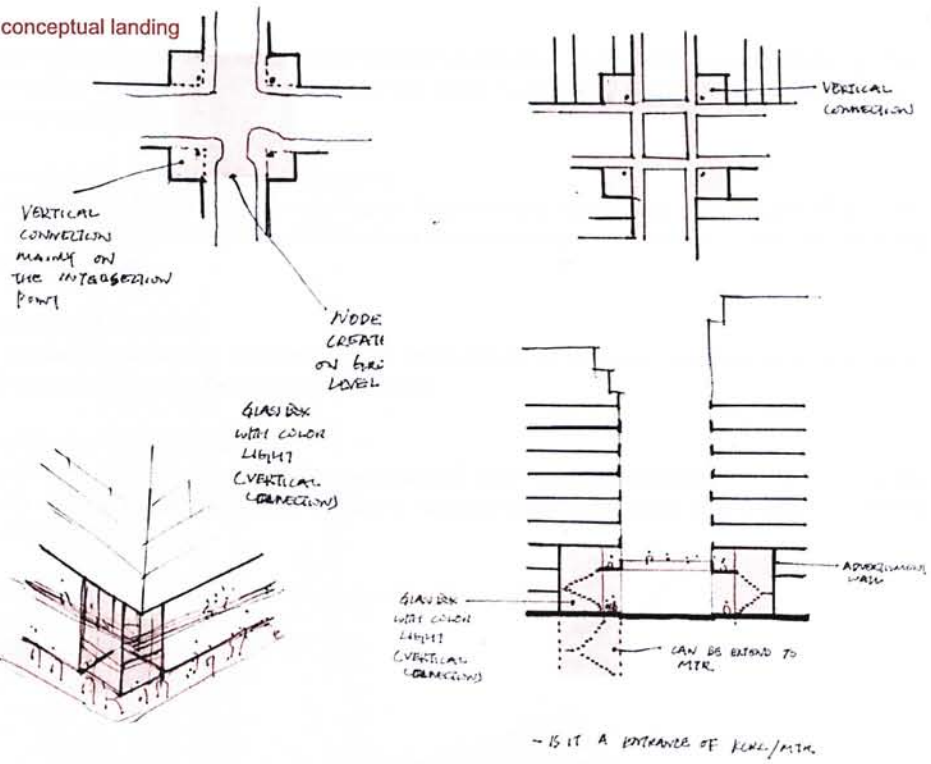



left: plan of 2/f and 3/f level
right: ground level plan

## 6.2 strategy testing — strategy approach 1 - elevated street network — 6.2.1

**design strategy**

proposed conceptual landing




left: gound level at landing part
right: 2/f and 3/f level at landing part

left: using corner of the building as a landing
right: extend to mtr

**examination**

***1. mode of connection: elevated connection***

- it is essential in Mong Kok's case in order to reduce the chaos of the ground level

***2. undefined design scope***

- there is no methods and conditions to define / terminate the network
- this comprehensive network would have a new relationship between the street
- the connected point to the station is not defined

***3. undefined intervention of the existing buildings***

- it is not valuable to intervene so many private residential buildings
- in what condition and how to intervent

***4. appropriate transformation of the bus terminal / carpark in station area***

- urban stage is good for the station area to connect the network and gathering the mass
- the void space in-between the station and the GIC building has a great potential to develop

## 6.2 strategy testing

## strategy approach 2 - two elevated streets over the main traffic road 6.2.2

**position**

***1. street-like approach***

with the street characters of Mong Kong, the connection should be a kind of street which containing street life from the station to the city.[1] This new kind of street could re-weaving the street level in ground level to complete the network of Mong Kok.

1. refer to Part B , "theoratical position" and "street study"

***2. two elevated streets over the main traffic road***

as the main traffic roads (Mong Kok Road and Nathan Road) and the middle parts are not appropriate for the street life[2], thus the connection would be extended from the station area over the roads. Some linkages would be provided between them.

2. refer to Part B , "street study"

***3. no distrubance of street life***

in order to maintain the street life, the impact on the street should be minimum. Thus the network would be landed after crossing Mong Kok Road and Nathan Road.

***4. intervention of government building***

along the extension, there are several government building[3] which could be intervented for other use. As the value and the demand of the government building is very low in this commercial area. Thus, it is better to change to other public use.

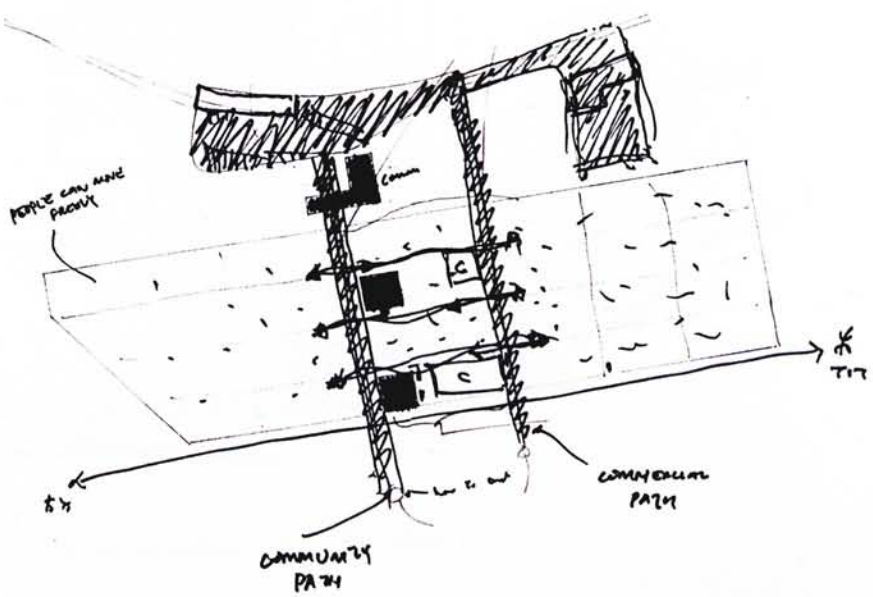
3. refer to Part B , "urban facility"

***5. transform the existing bus terminal and carpark to urban stage***

***6. neglect of the existing footbridge***

***7. reserve the existing buildings***

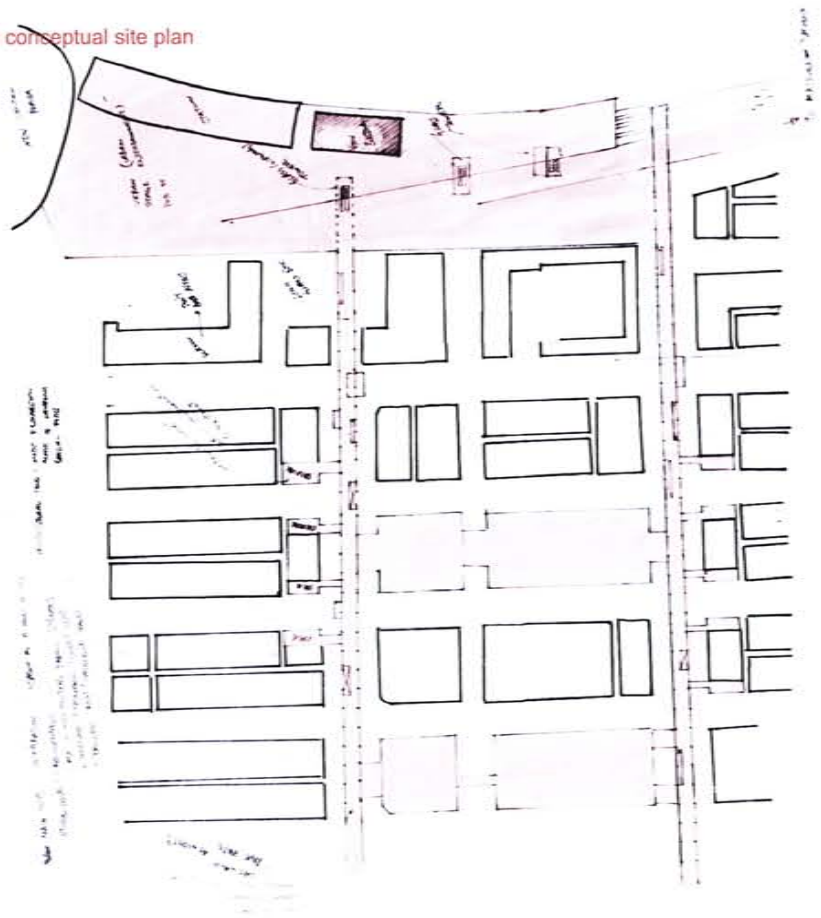
**design strategy**




site strategy diagram

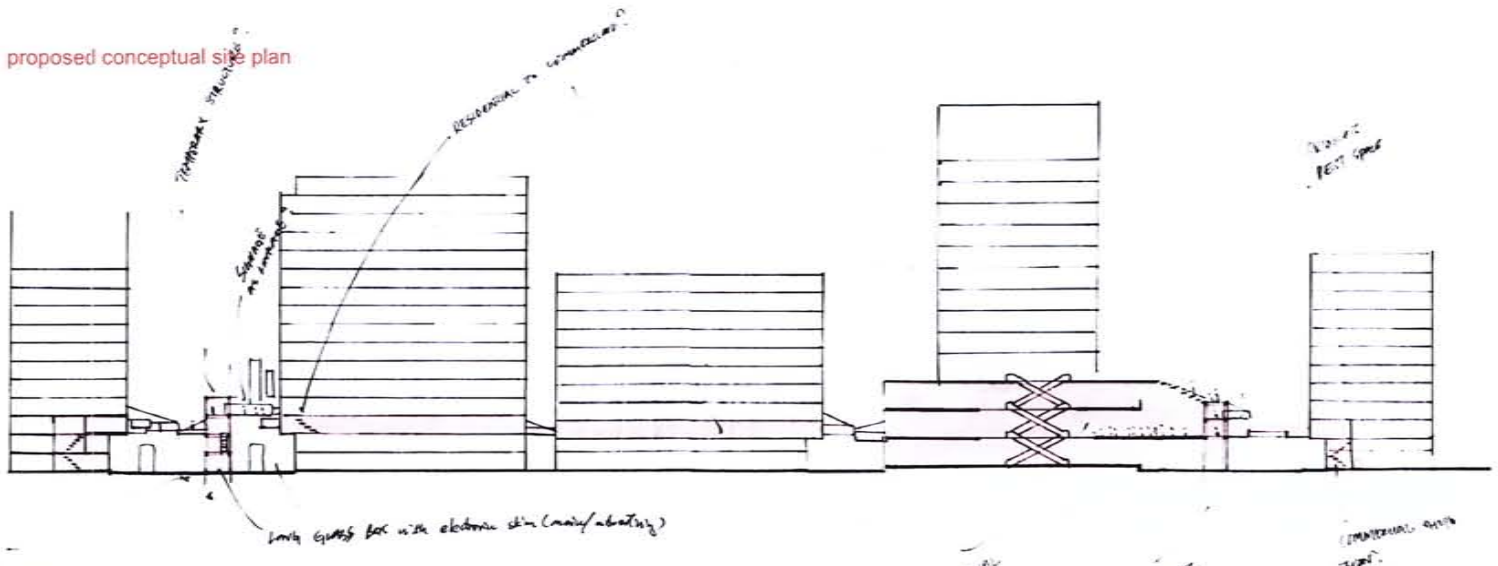
design strategy

proposed conceptual site plan



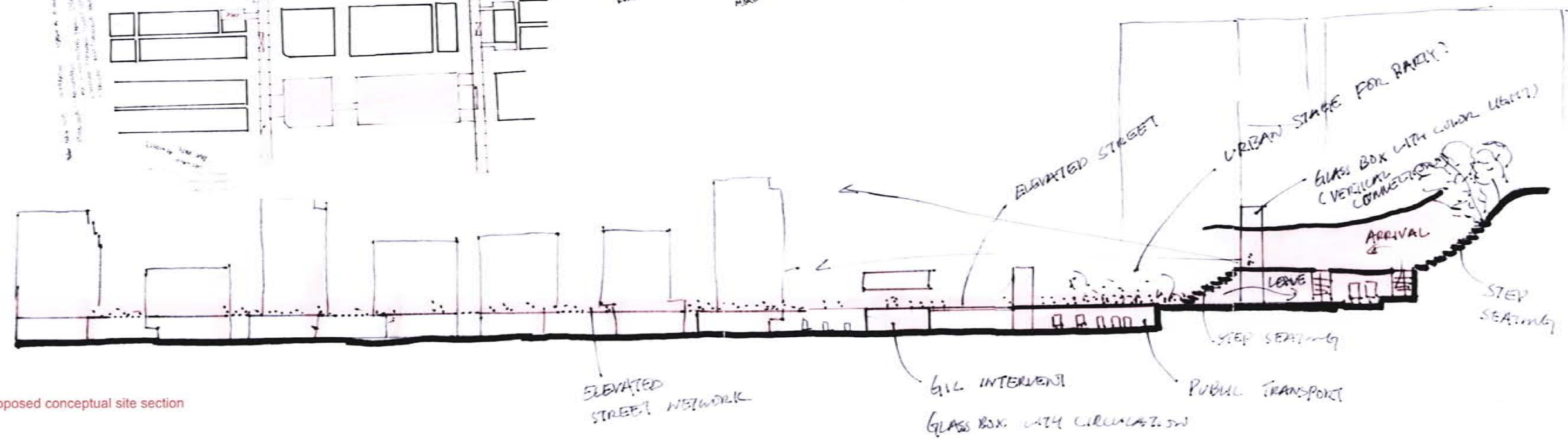
left: plan at 6.5m level
right: site section across two main traffic road

proposed conceptual site plan




left: site section along Mong Kok Road

proposed conceptual site section

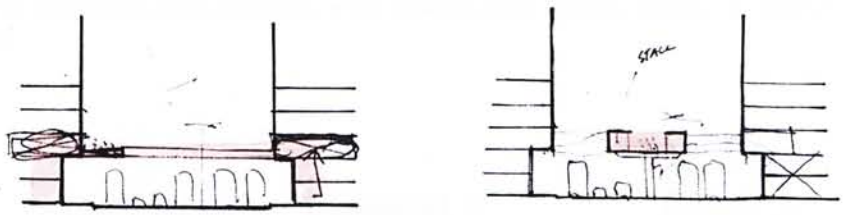


## 6.2 strategy testing strategy approach 2 - two elevated streets over the main traffic road 6.2.2

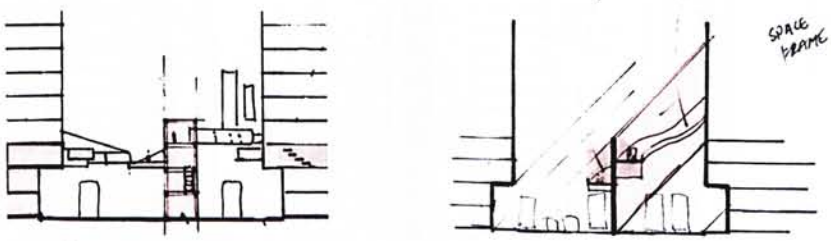
### design strategy

proposed sections

options for the form of elevated street
left: elevated platform
right: open up footbridge with shops



options for the form of elevated street
left: glass space frame
right: curving path along a wall




### examination

***1. not satisfied the new street approach***

- as the traffic road is much wider than the typical street[1], it is impossible to create a kind of Mong Kok street over the roads to connect the station and the city.

1. refer to Part B , "street study"

***2. suitable intervention of government building***

- with the site obsevartion, along Mong Kok road, FEHD, Market Complex and TID
- they are appropriate for intervention with their low efficiency and vacant space.

***3. impossibe linkage between the two elevated streets***

- impossible and not supported by any evidences to link up the two elevated streets by the in-between commercial buildings
- need to explore and decide whether it is essential or not

***4. undefined the termination of the elevated streets***

the proposed elevated streets have no definitely termination along the main road direction, that reveal the design scope has not been well defined.

## 6.2 strategy testing

## strategy approach 3 - an elevated street over FiFe Street

proposed at 1st sem. final review

6.2.3

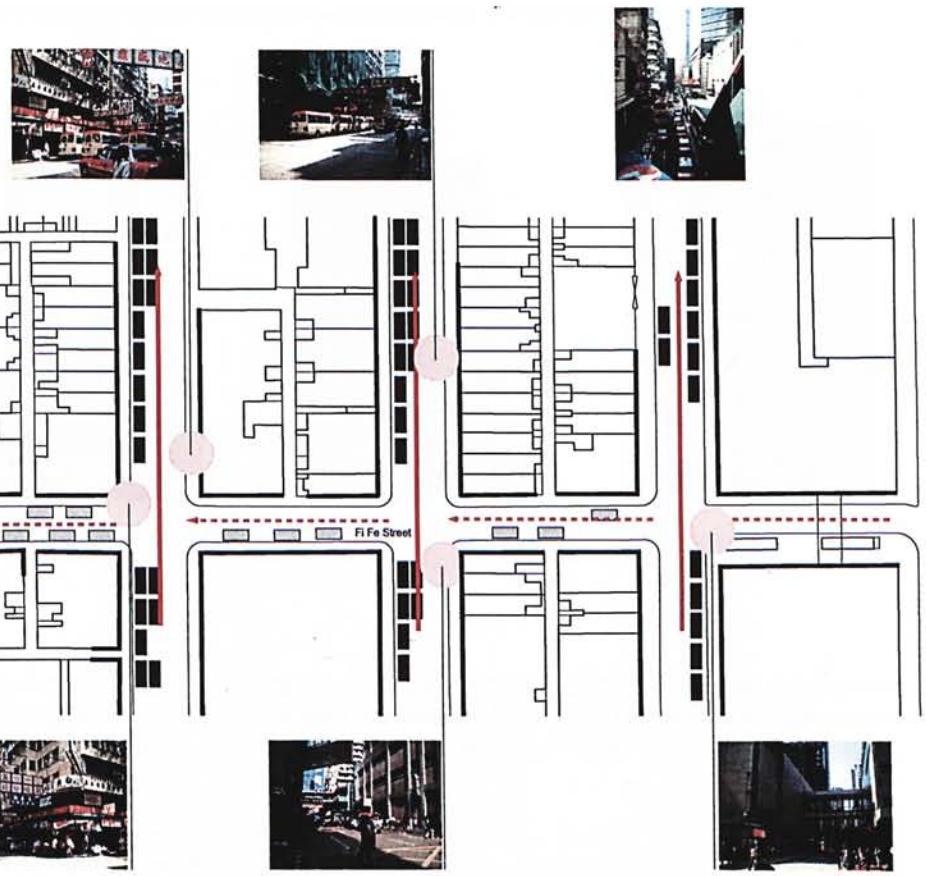
**position**

***1. a new elevated street over Fi Fe street***

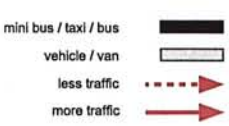
the street life of Fi Fe Street is not so rich compared with others and it is mainly dominant by the transportation.[1] With the appropriate spatial porportion, a new elevated street would be proposed to connect the station and the city

1. refer to Part B , "street study"

left: fi fe street traffic study




traffic diagram of fi fe street


- all are one-way traffic road
- traffic flow in Fi Fe Street is low

## strategy approach 3 - an elevated street over FiFe Street

proposed at 1st sem. final review



**position**

***2. linkages to important streets***

there are several important streets in Mong Kok[1], linkages would be provided across the middle part from the proposed elevated street to them. This also help to complete Mong Kok's network in urban life and movement.

1. refer to Part B , "street study"

***3. intervention of 2/f and 3/f of existing buildings along Fi Fe Street***

the 2/f and 3/f of the existing buildings along Fi Fe Street has been conducted to community use or commercial use[2], there is a chance to deal with these floors for devloping a street-like connection.

2. refer to Part B , "street study"

left: Fi Fe Street
middle: typical building in Fi Fe Street
right: 2/f and 3/f change to commercial use

***4. termination with MTR entrance***

there are two mass transportation facilities in Mong Kok (KCRC and MTR), and there are some entrance at the end of Fi Fe Street which provide a chance of termination.[3] As a result, an interchange of these two mass transition system would be created with the experience of Mong Kok's urban life

3. refer to Part B , "urbna facility"

***5. street-like approach***

***6. intervention of government building***

***7. no distrubance of street life***

***8. transform the existing bus terminal and carpark to urban stage***

***9. neglect of the existing footbridge***

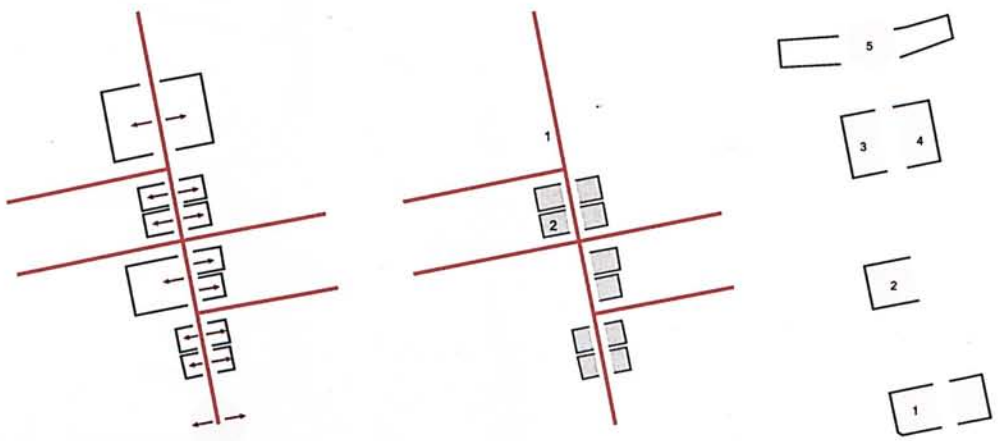
***10. reserve the existing buildings***

## strategy approach 3 - an elevated street over FiFe Street

proposed at 1st sem. final review



**design strategy** proposed programs




left: site strategy diagram
middle: small scale program distribution
right: large scale program distribution

small scale program

1. elevated street actvities:
   - shopping with existing 2/f shop
   - small scale performance
   - small scale forum
   - interview and advertising

2. some parts of Fi Fe Street (g/f and 1/f):
   - closed for entertainment used
   - karaoke centre
   - bowling centre
   - small cinema
   - tv game centre

large scale program

1. existing TID building
change to shopping mall
2. existing market complex:
modifed for food plaza and market place
3. existing FEHD department building:
modified to youth hostel with some programs share out
4. existing WSD department building:
modified to community centre with public garden
5. existing carpark in station podium:
change to urban stage with TV screen

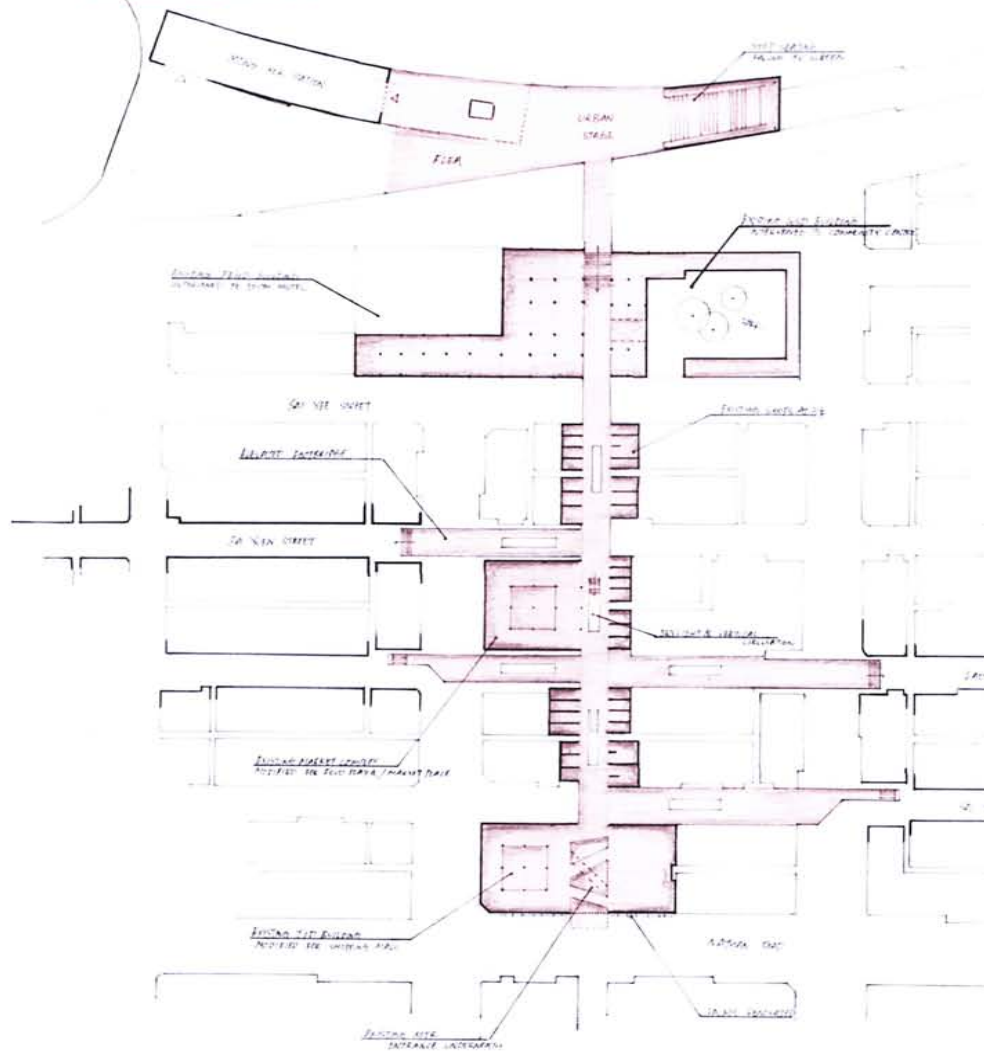
## 6.2 strategy testing strategy approach 3 - an elevated street over FiFe Street

proposed at 1st sem. final review

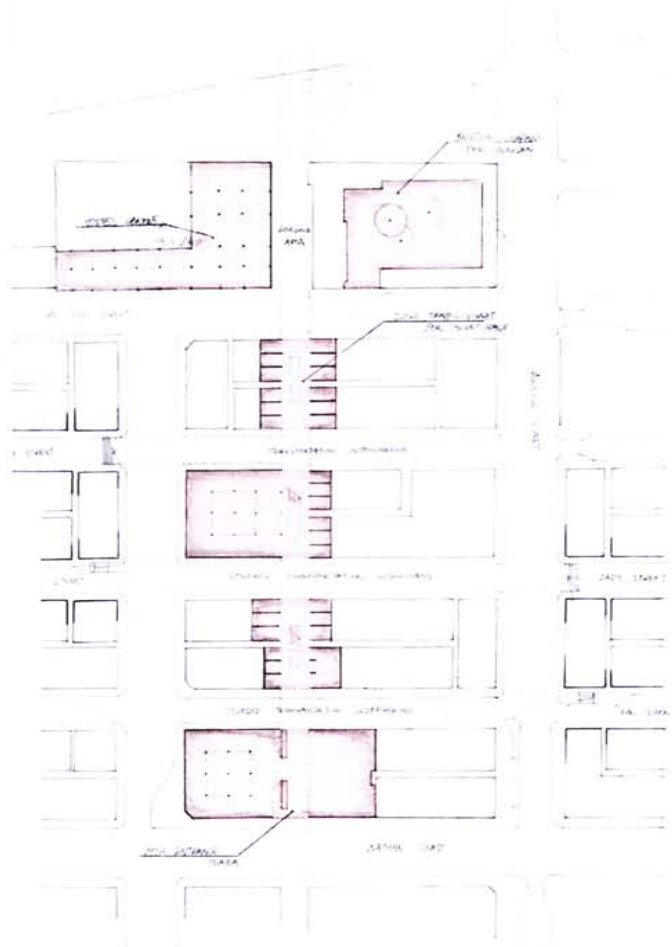
6.2.3

**design strategy**

proposed site plan at 6m



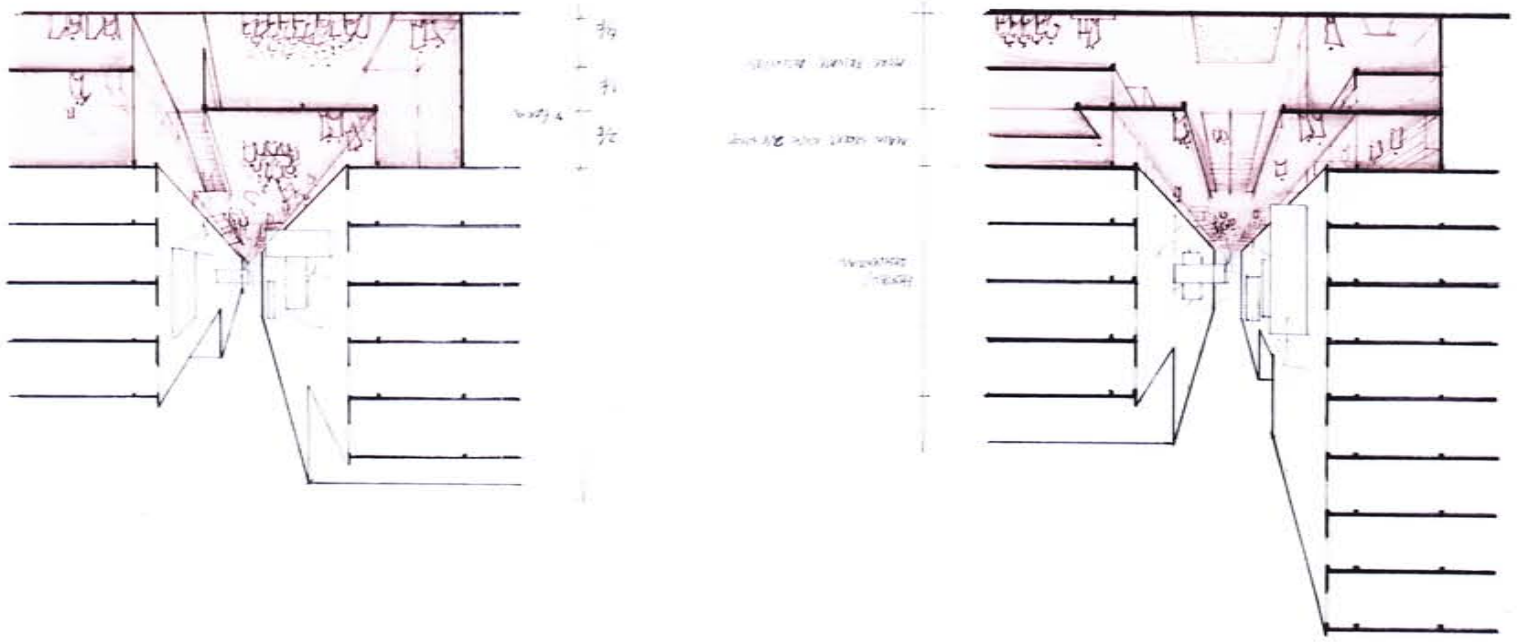
proposed site plan at ground level



left: plan at 6.5m
right: ground floor plan
1:3500


left: site section along KCRC station
to MTR station (Nathan Road)
1:1250

proposed site section along Mong Kok Road



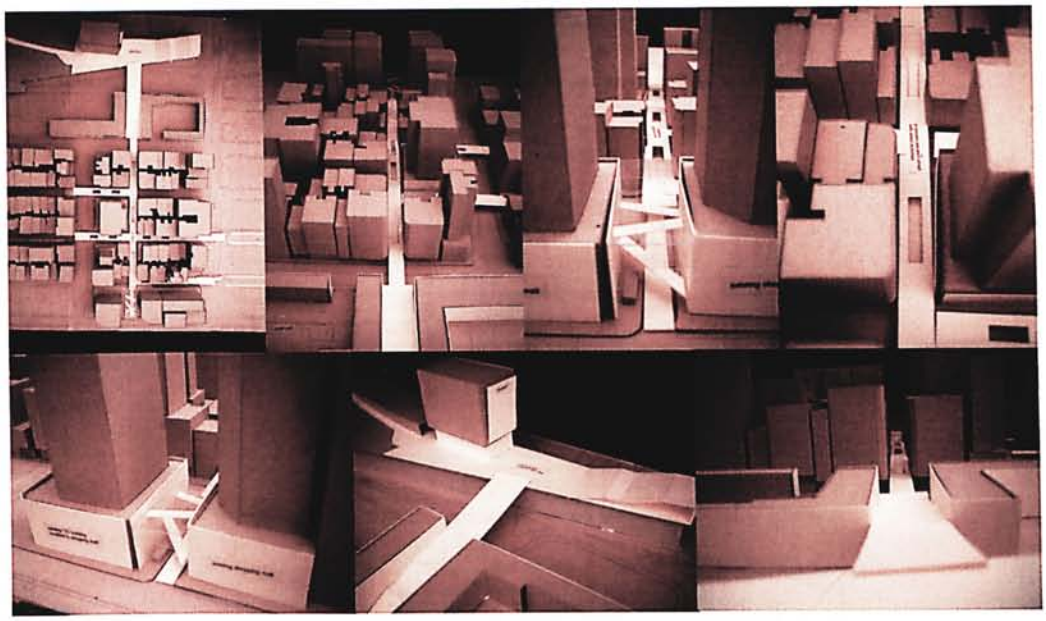
left / right: section show intervention options
of the proposed elevated street
with the existing buildings
1:400

## strategy approach 3 - an elevated street over FiFe Street

proposed at 1st sem. final review



**design strategy**



left, 2nd: site strategy model
3rd: termination plaza with glass roof
right: elevated street with skylight

left: termination plaza with mtr entrance
middle: urban stage with screen
right: view from station

**examination**

***1. destroy the street life at ground level***

- after the site conservation, Fi Fe Street is not so "quiet", the street life still has certain richness
- the proposed elevated street (decking-like) would destroy the street life at ground level which contradict to the position
- the covered linkage to the importnat street across the middle part would totally kill the street

***2. over simplifed the complexity of intersection point***

- there are a many issues at the intersection point, a deep understanding should be required
- it reveals that the scope might be too large and complex

***3. inconsequential proposed programmes***

- the proposed programmes are too diverse and bitty
- a core programme should be proposed to link up the design

## strategy approach 4 - existing footbridge over Mong Kok Road

proposed at 2nd sem. mid-term review



**position** proposed design scope

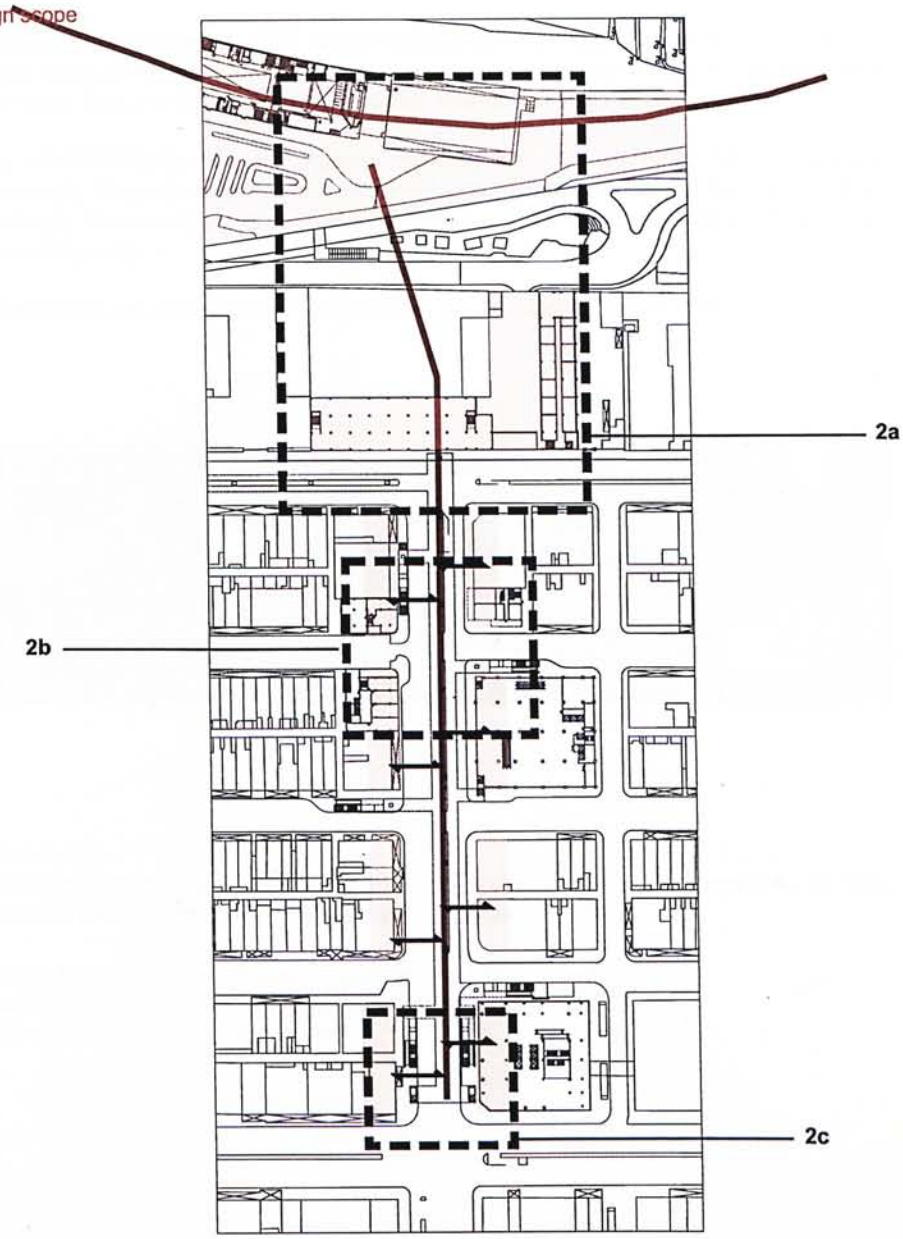



diagram left: design scope diagram

## 6.2 strategy testing

## strategy approach 4 - existing footbridge over Mong Kok Road

proposed at 2nd sem. mid-term review

6.2.4

**position**

***1. urban coherence***

Mong Kok is a kind of urban coherence at the state of being a humanize street with full of street activities. However, after the study, on the other hand, Mong Kok is disjointed into several parts by the traffic road (another kind of street), thus, the urban coherence is broken at certain parts of the city.

Firstly, the Mong Kok KCRC Station, a mass magnet, is disconnected from the city by the Sai Yee Street and the GIC zone. Secondly, the government has built an elevated footbridge over Mong Kok Road and connect to the station indirectly. However, it is only an expressway in Mong Kok to transfer people which cannot re-integrate the seam coherently.

With the urban coherence, the seam should be re-integrated with the street character of Mong Kok.


left to right, photo: street life in Mong Kok

***2. focus on the junctions***

As the design scope is great large, so the thesis would be more focused on the junctions parts along the route. Then the thesis would be more focus on the following three junctions:

a) junction between the kcr station and the existing footbridge (including FEHD building)
b) typical intersection part of footbridge including the deteriorated tenement buildings
c) ending part of the footbridge facing Nathan Road

## strategy approach 4 - existing footbridge over Mong Kok Road



proposed at 2nd sem. mid-term review

**position** *3. respecting the existing urban fabric (intervention approach)*

a) intervention of government building (FEHD)

In a large scale of the city, the focus is mainly on the connection of the station and the city. As the fabric in this part is distinct from Mong Kok's character, the urban coherence would be achieved by the contrasting design approach, which can provide a sense of receiving place with Mong Kok image.

As FEHD building become the access barrier to the station, its function and the commercial value are no longer matched to Mong Kok. With retaining the existing FEHD, it would be intervened to an urban building for public function.

left photo: existing FEHD building

b) transform the existing footbridge into an elevated commercial street

Because the station is in a higher level, the new constructed footbridge over Mong Kok Road is essential in Mong Kok, however, it is only an indirectly expressway from station. The footbridge can also help to re-connect the separated part of Mong Kok which cut by Mong Kok Road. This footbridge induces a series of problems and the opportunities.

left: existing footbridge (expressway only)
middle: footbridge at night time (nobody)
right: upper layer over the traffic road

## strategy approach 4 - existing footbridge over Mong Kok Road

proposed at 2nd sem. mid-term review



**position**

c) intervention of 1/f and 2/f of existing buildings along Mong Kok Road

as the engineer approach, the footbridge is only inserted into the city without any relationship between the fabrics. The residential units in 2/f and 3/f of the existing buildings along Mong Kok Road are no longer survived. Thus, it has an opportunities to transform the fabric into another relationship within the footbridge, existing buildings and the street.

left to right:
destructive effect of the buildings besides

d) intervene the government building (TID) for terminated landing

As the existing footbridge is suddenly terminated in front of Nathan Road, the sense of direction of the jounery is lost, the termination part would be re-intervened together with the TID building next to it.

left to right:
existing termination condition of the footbridge

***4. no distrubance on ground level street life***

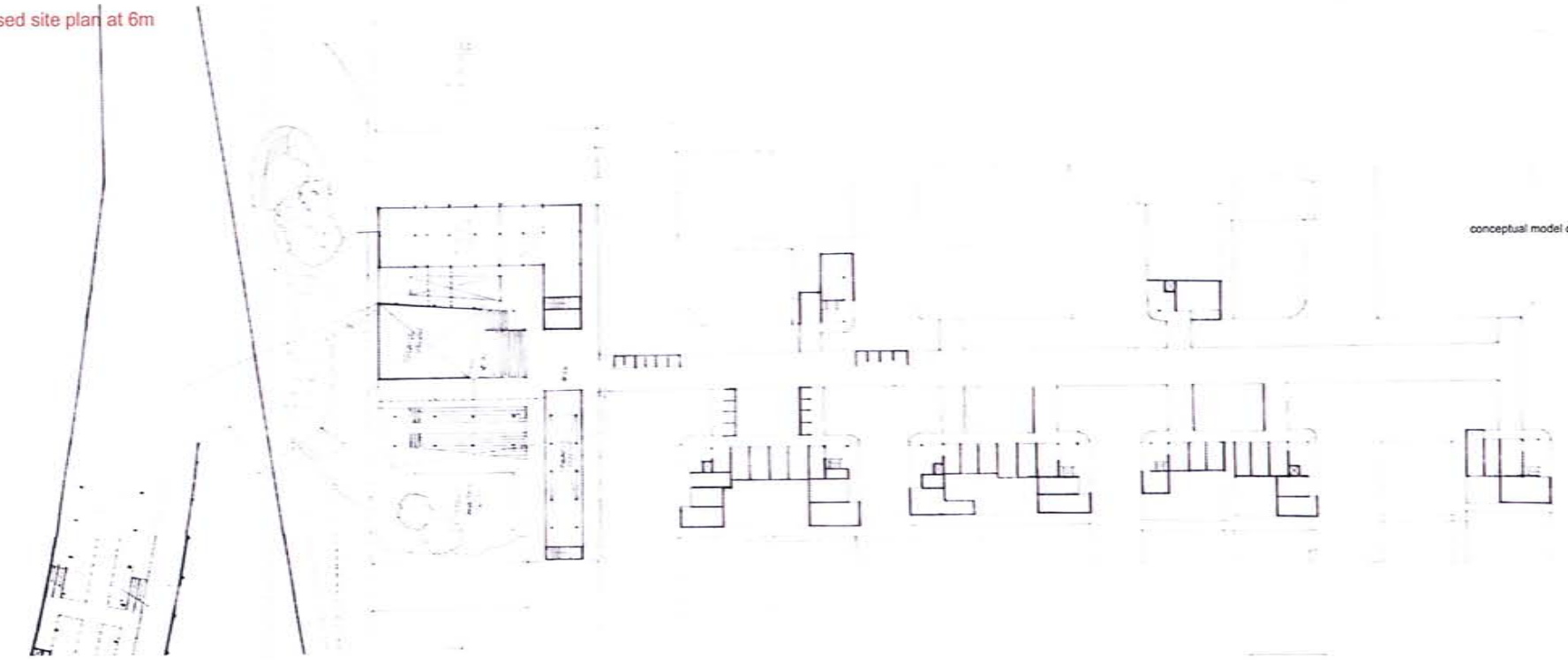
# strategy approach 4 - existing footbridge over Mong Kok Road

proposed at 2nd sem. mid-term review

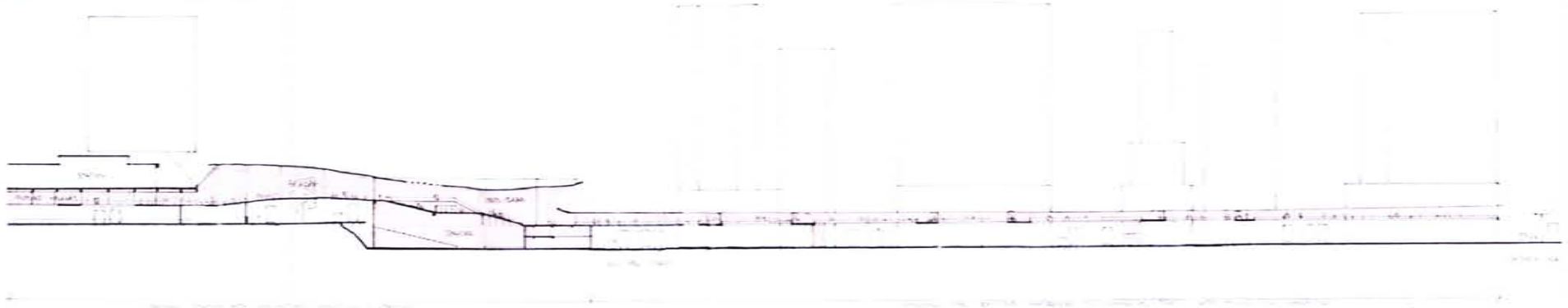


**design strategy 1**
**- overall planning**

proposed site plan at 6m



proposed site section along Mong Kok Road



left :
conceptual model of the whole idea

left :
site model

## strategy approach 4 - existing footbridge over Mong Kok Road
proposed at 2nd sem. mid-term review

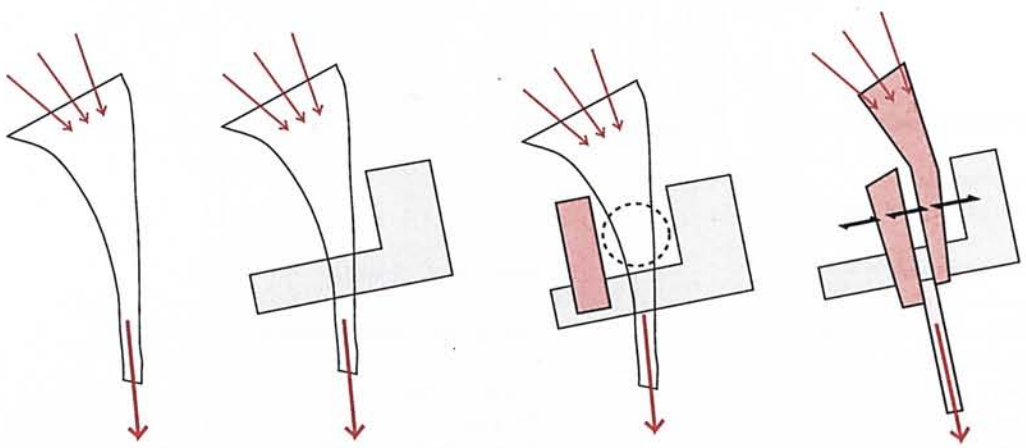


**design strategy 1**
**- intervention of FEHD**

building diagram


left: buiding diagram

Transformation of transition space from the mass source (station) to the urban street



from left to right, diagrams:
1. "bell" shape of transition space
2. transition space with existing building
3. addition for create central space
4. transform the shape

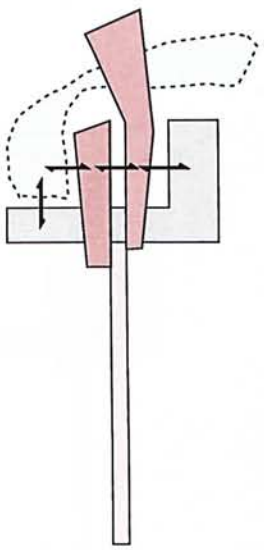
## strategy approach 4 - existing footbridge over Mong Kok Road

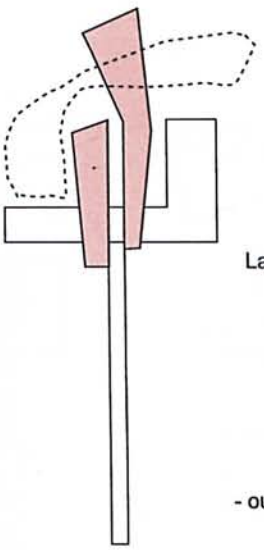
proposed at 2nd sem. mid-term review



**design strategy 1**
**- intervention of FEHD**

proposed program

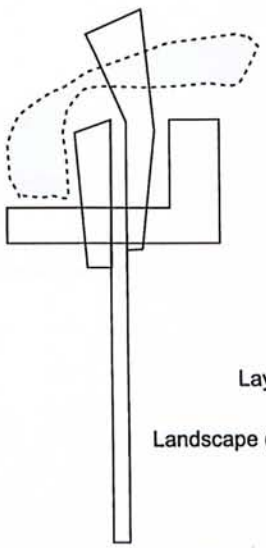


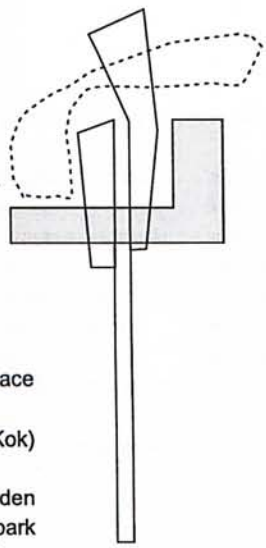


Layer 1: New Inserted Building

Community Program
(shared with public)

- auditorium
- library
- convention hall
- outdoor theatre with TV screen
- bazzar
- gallery





Layer 2: Open Space

Landscape (lack in Mong Kok)

- existing garden
- city park
- outdoor basketball court

Layer 3: Existing Building

Entertainment
(abstract from Mong Kok)

- karaoke centre
- fitness centre
- electronic game centre
- bowling
- hostel
- food court
- retails

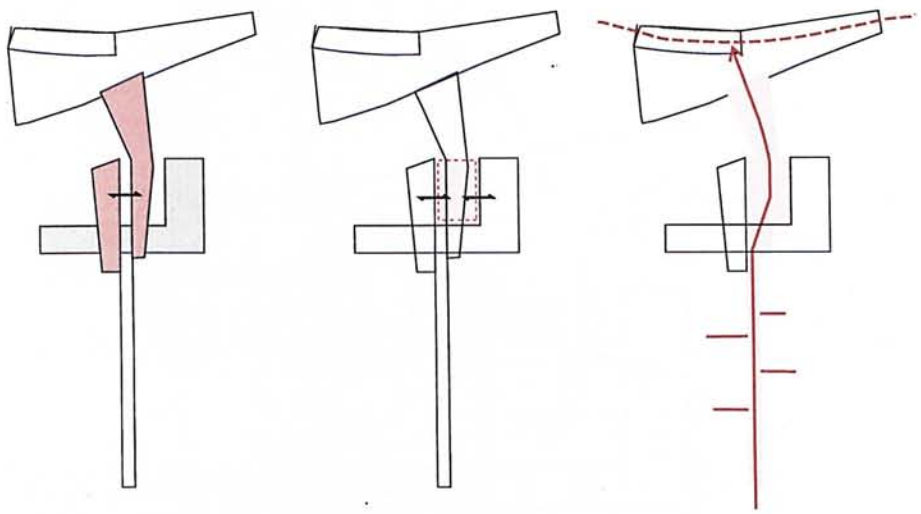
left:
different layers of proposed programs diagrams

## strategy approach 4 - existing footbridge over Mong Kok Road
proposed at 2nd sem. mid-term review



**design strategy 1**
**- intervention of FEHD**

building diagram



from left to right, diagrams:
1. new and old relationship
2. unprogrammed central space for communal activities
3. people movement

### new and old

- 2 new buildings insert into the existing
- contrast with the shape
- contrast with the materials

### unprogrammed central space

- all the rigorously programmed activities around an unprogrammed, event-oriented, large central space
- activated by the density of what surrounds it, which, in most unexpected way
- the central space gatehrs together all of circulation
- which have certain similarity of street

### people movement

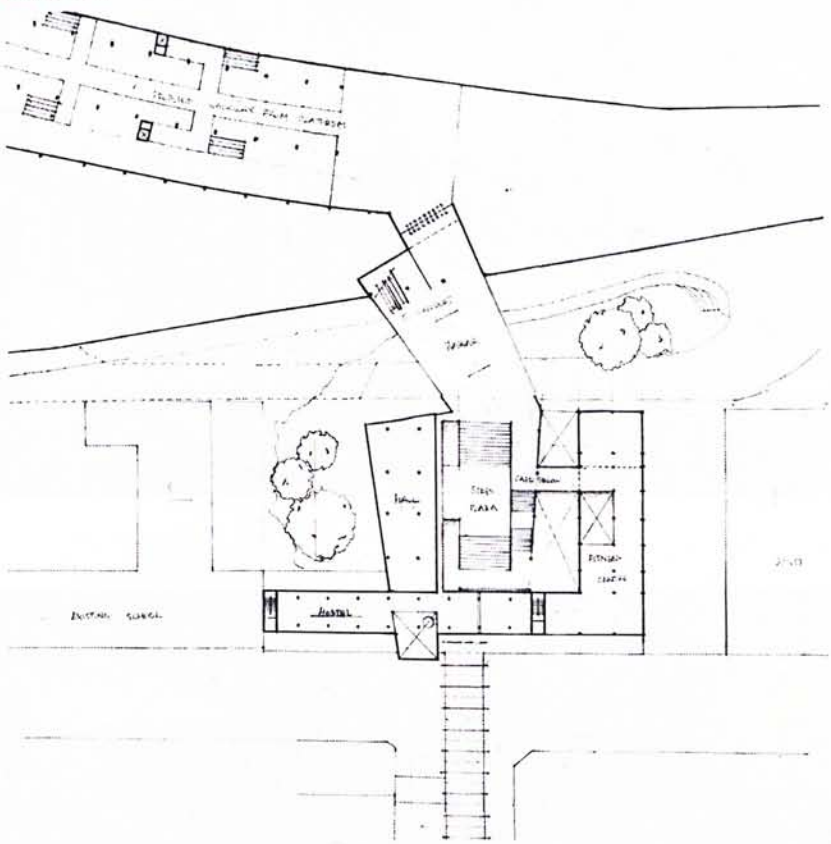
- a large bazzar receive the mass from the train and discharge to the steps plaza within the building
- through the central public space to the elevated commercial street
- landing on ground level through the building

## strategy approach 4 - existing footbridge over Mong Kok Road
proposed at 2nd sem. mid-term review

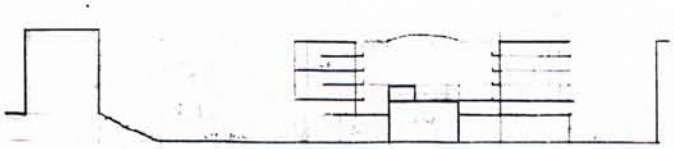


**design strategy 1**
**- intervention of FEHD**

building plan at 12m



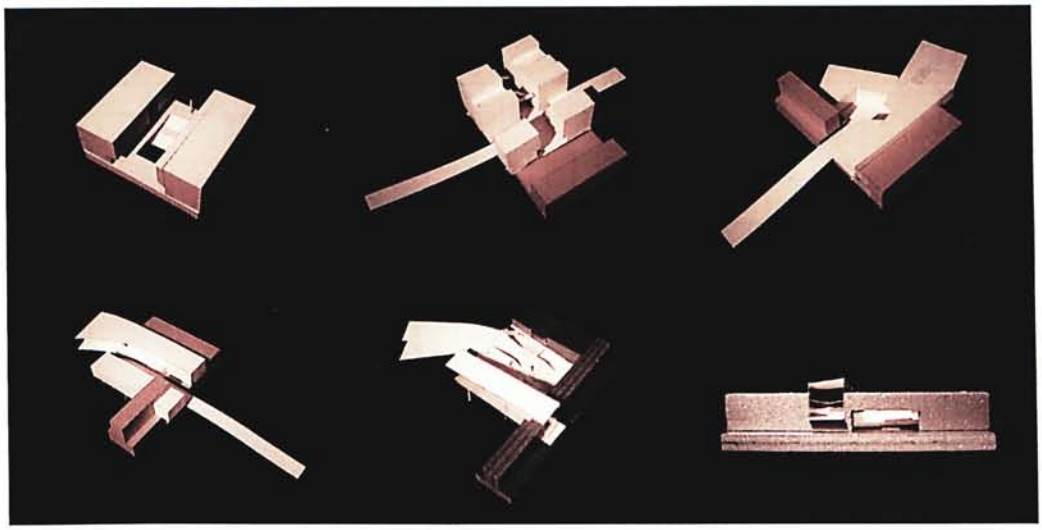
building section



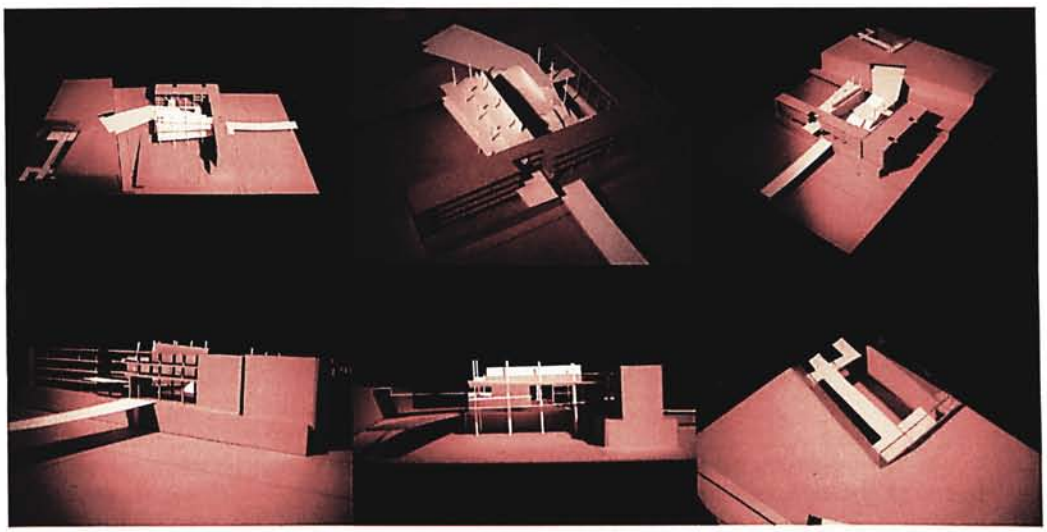
## strategy approach 4 - existing footbridge over Mong Kok Road
proposed at 2nd sem. mid-term review



**design strategy 1**
**- intervention of FEHD**



from left to right, photo:
massing studies
for the intervened building and the station



from left to right, photo:
proposed design model 1:250
for the intervened building and the station

## strategy approach 4 - existing footbridge over Mong Kok Road

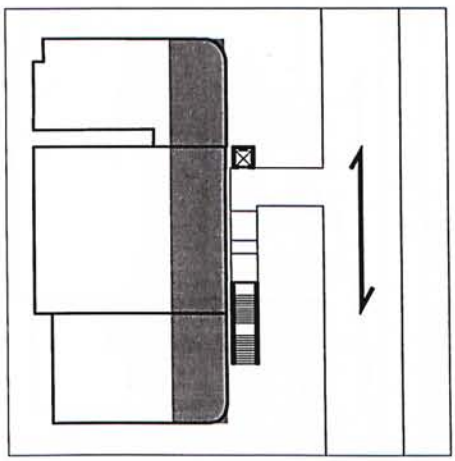
proposed at 2nd sem. mid-term review

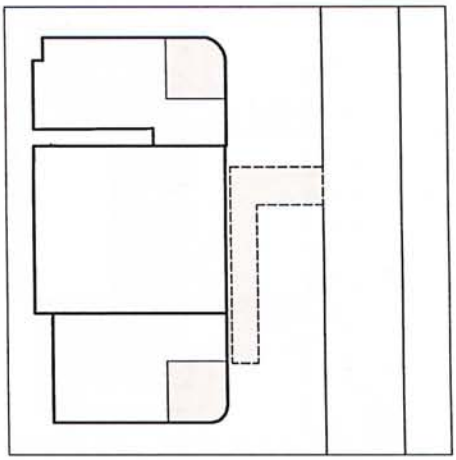


**design strategy 1**
**- intervention of footbridge**

existing conditions

removal and subtraction





left: diagram of existing condition
right: diagram of removal and subtraction process

- no relationship with the existing fabric when insert a footbridge
- existing 1/f and 2/f already dead
- footbridge expressway only
- existing landing destroy the continuity of the ground level

- remove the existing landing
- subtract a small part of building for vertical circulation (which similar to existing movement pattern)

## strategy approach 4 - existing footbridge over Mong Kok Road

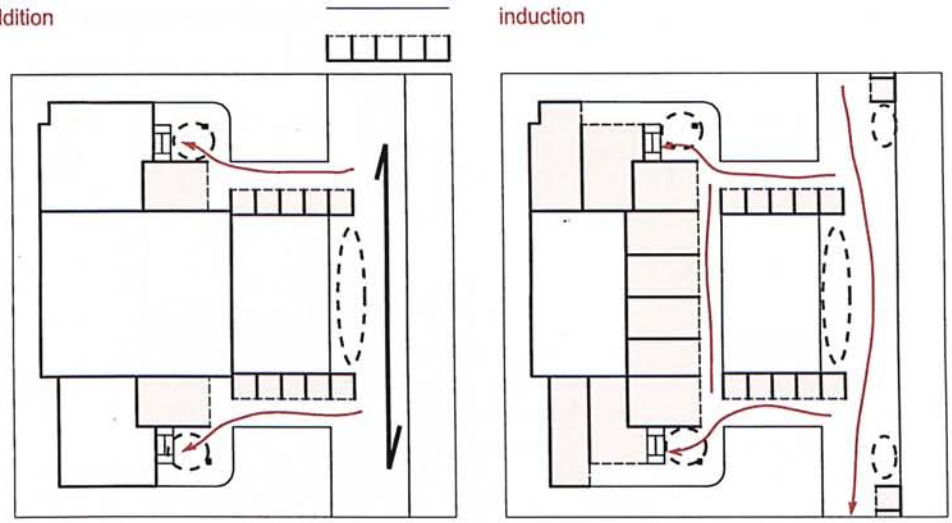
proposed at 2nd sem. mid-term review



**design strategy 1**
**- intervention of footbridge**

addition

induction



left: diagram of addition of shops, new circulation pattern is created

right: diagram of induction process, an internal shopping street is induced

- addition of a small shop bridge
- transform the bridge to commercial street which not only for express
- small scale urban space for stop and activities

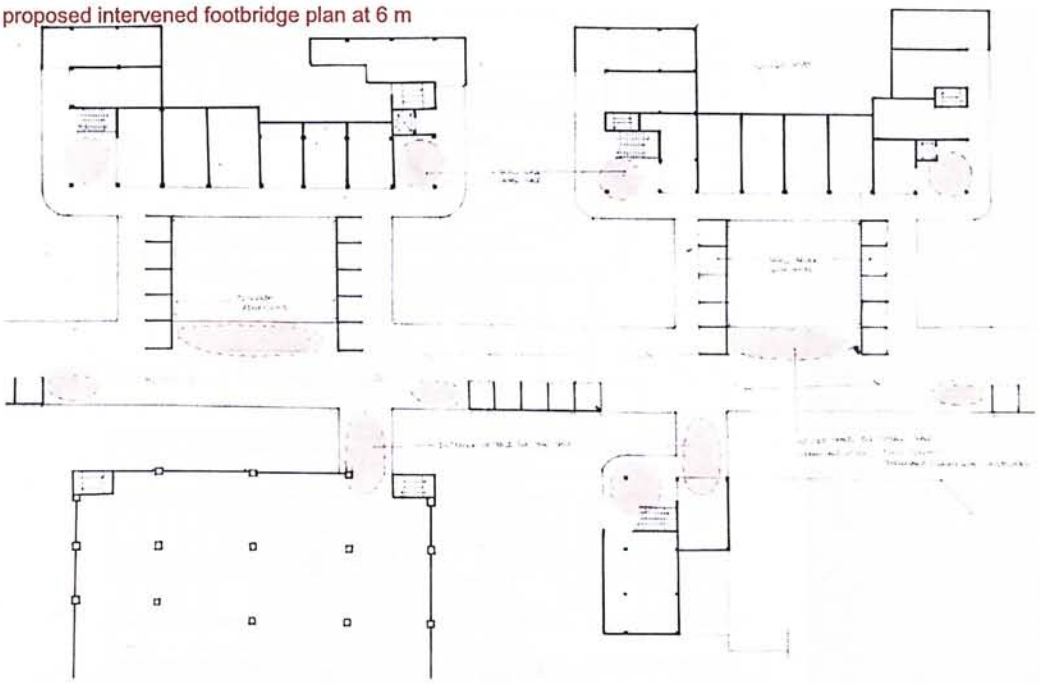
- with the commercial demand, the existing facade move back to induce a street and shops
- movement start to negotiate with the activities induced by the shops (street like)

## strategy approach 4 - existing footbridge over Mong Kok Road
proposed at 2nd sem. mid-term review



**design strategy 1**
**- intervention of footbridge**

proposed intervened footbridge plan at 6 m



left: plan at 6m
of proposed elevated shopping street,
the red show the interaction space created

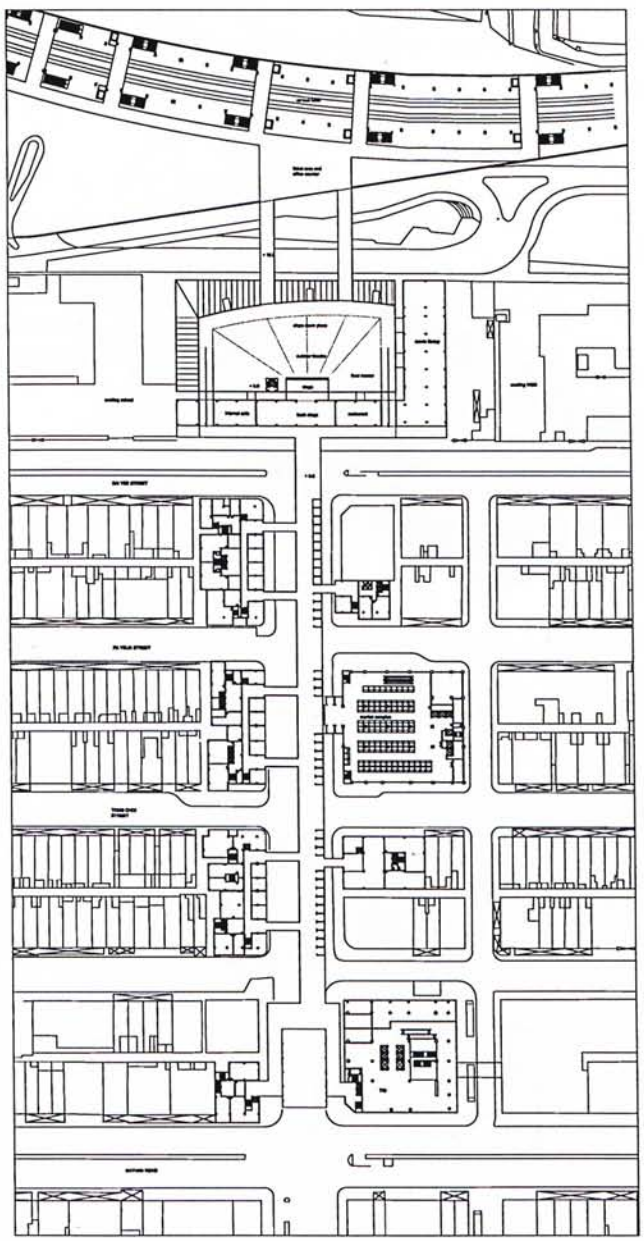
from left to right, photo:
proposed design model 1:200
for the intervened footbridge

## strategy approach 4 - existing footbridge over Mong Kok Road
proposed at 2nd sem. mid-term review



**design strategy 2**
**- overall planning**

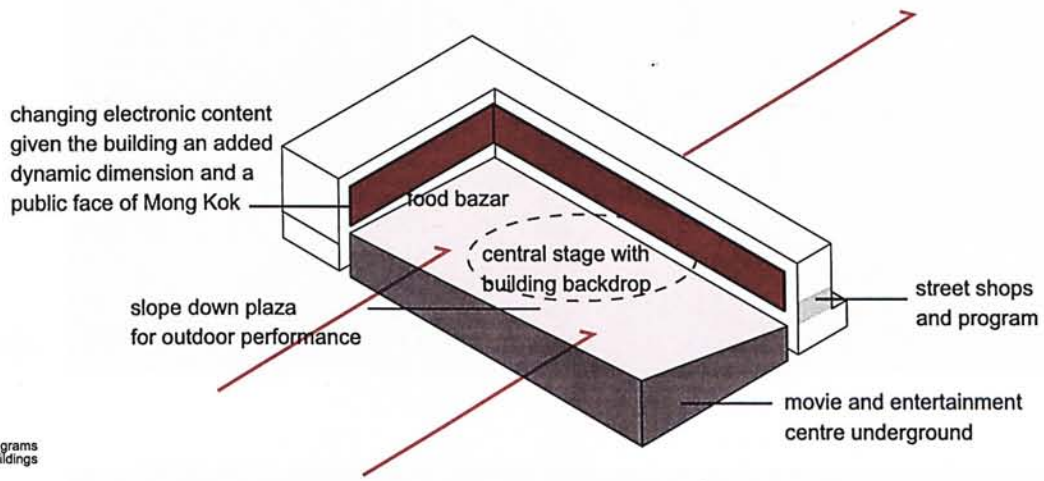
site plan



left: site plan
right: site model photo 1:500

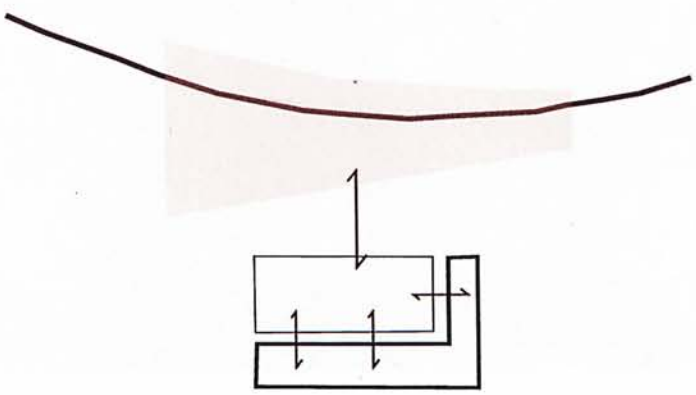
**design strategy 2**
**- intervention of FEHD**

proposed program
create a sense of identity and place of Mong Kok to act as a receiving place of station




left: program diagrams
of the intervened buildings

relationship between mass transition (kcr) and the surrounded building as well as the city

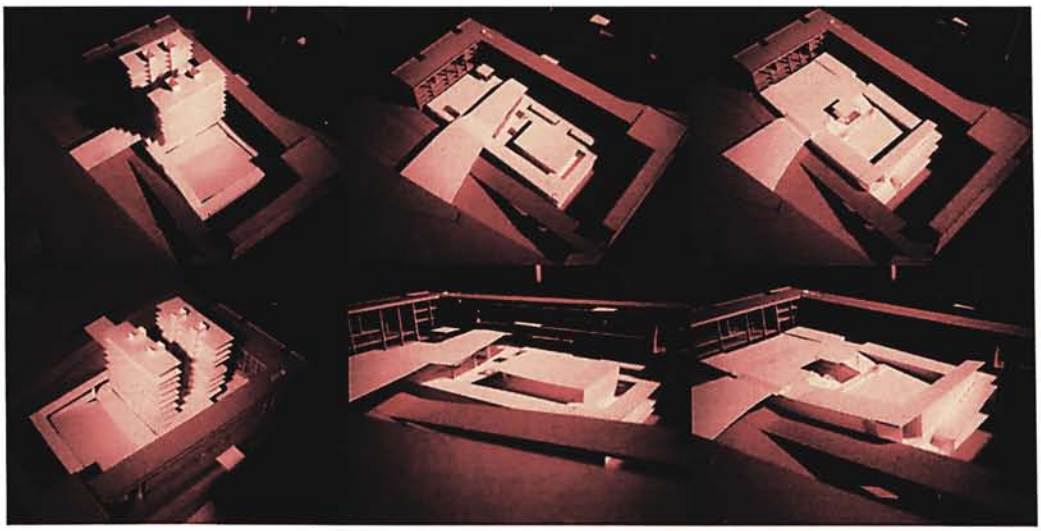


left: relationship diagram

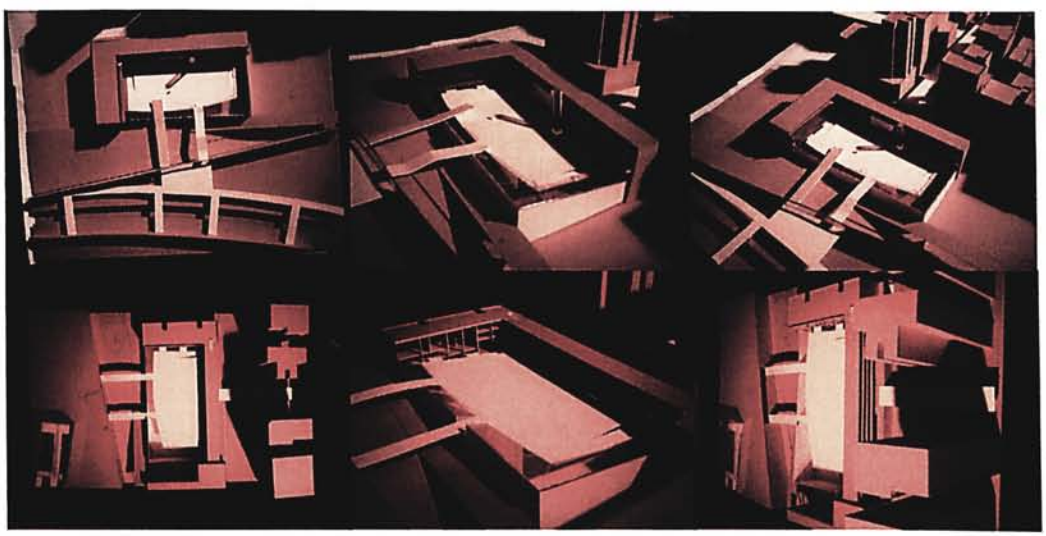
## strategy approach 4 - existing footbridge over Mong Kok Road
proposed at 2nd sem. mid-term review



**design strategy 2**
**- intervention of FEHD**



from left to right, photo:
building design studies 1:250



from left to right, photo:
proposed design model 1:500
for the intervened building

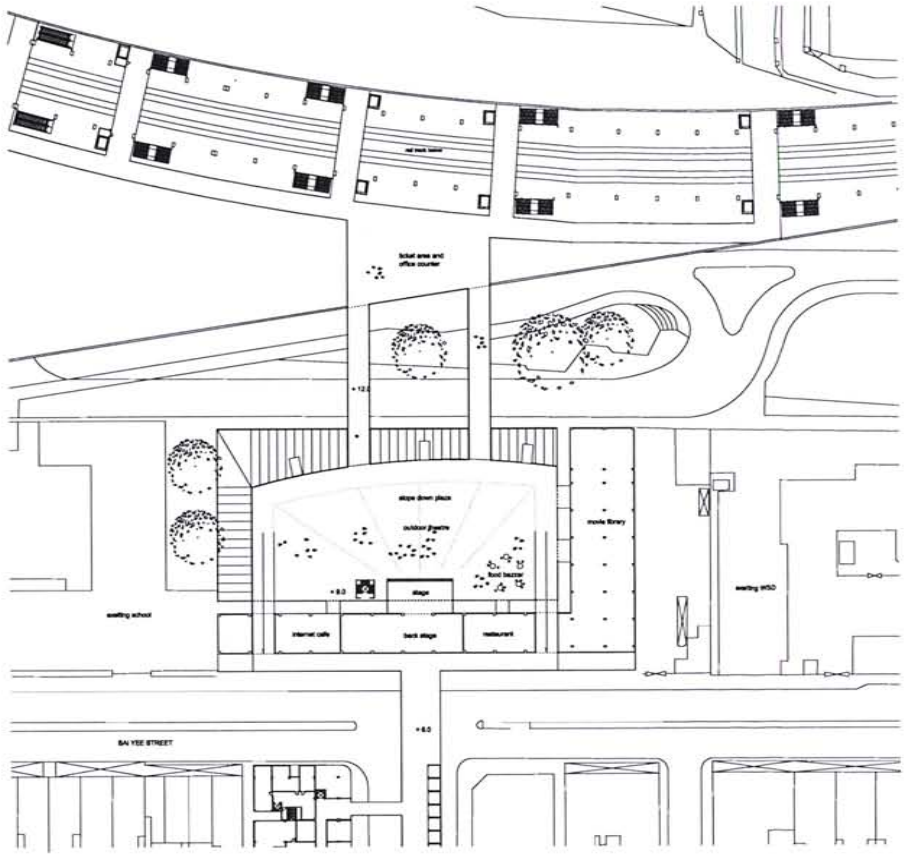
from left to right, photo:
proposed design model 1:250
for the intervened building

## strategy approach 4 - existing footbridge over Mong Kok Road
proposed at 2nd sem. mid-term review

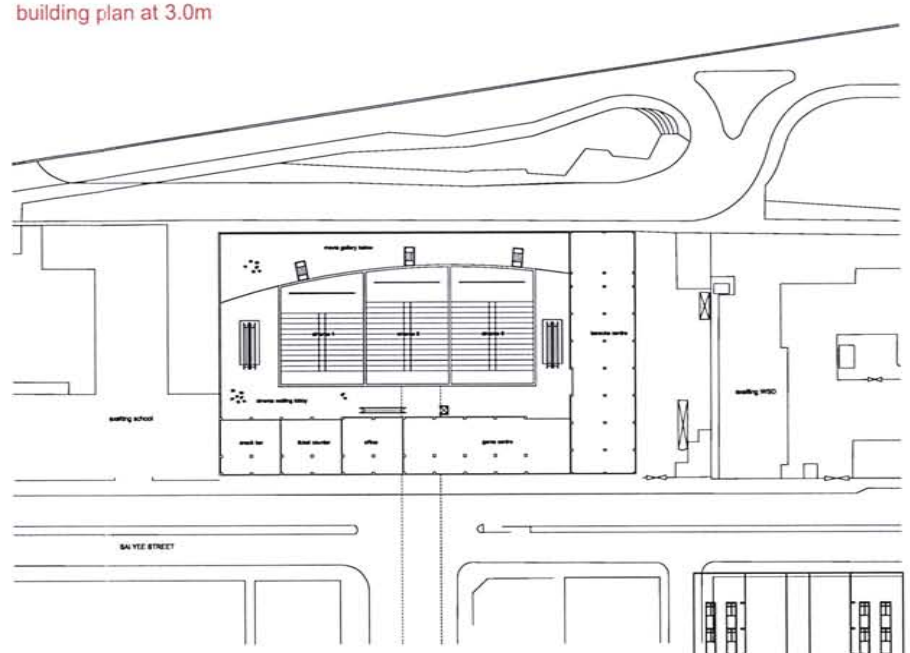


**design strategy 2**
**- intervention of FEHD**

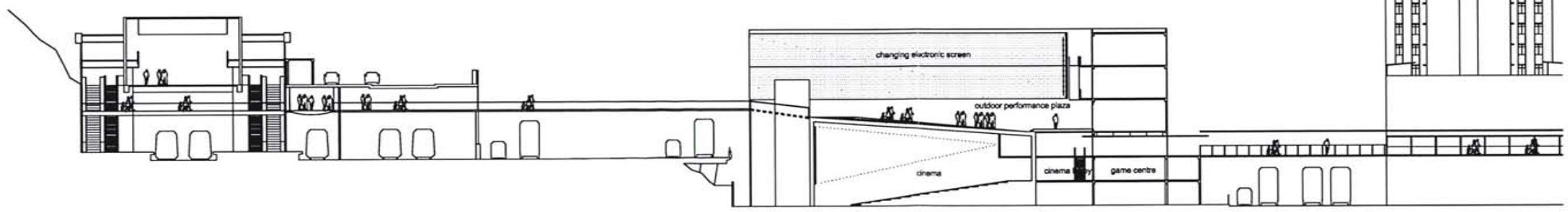
building plan at 6.0m




building plan at 3.0m




building section



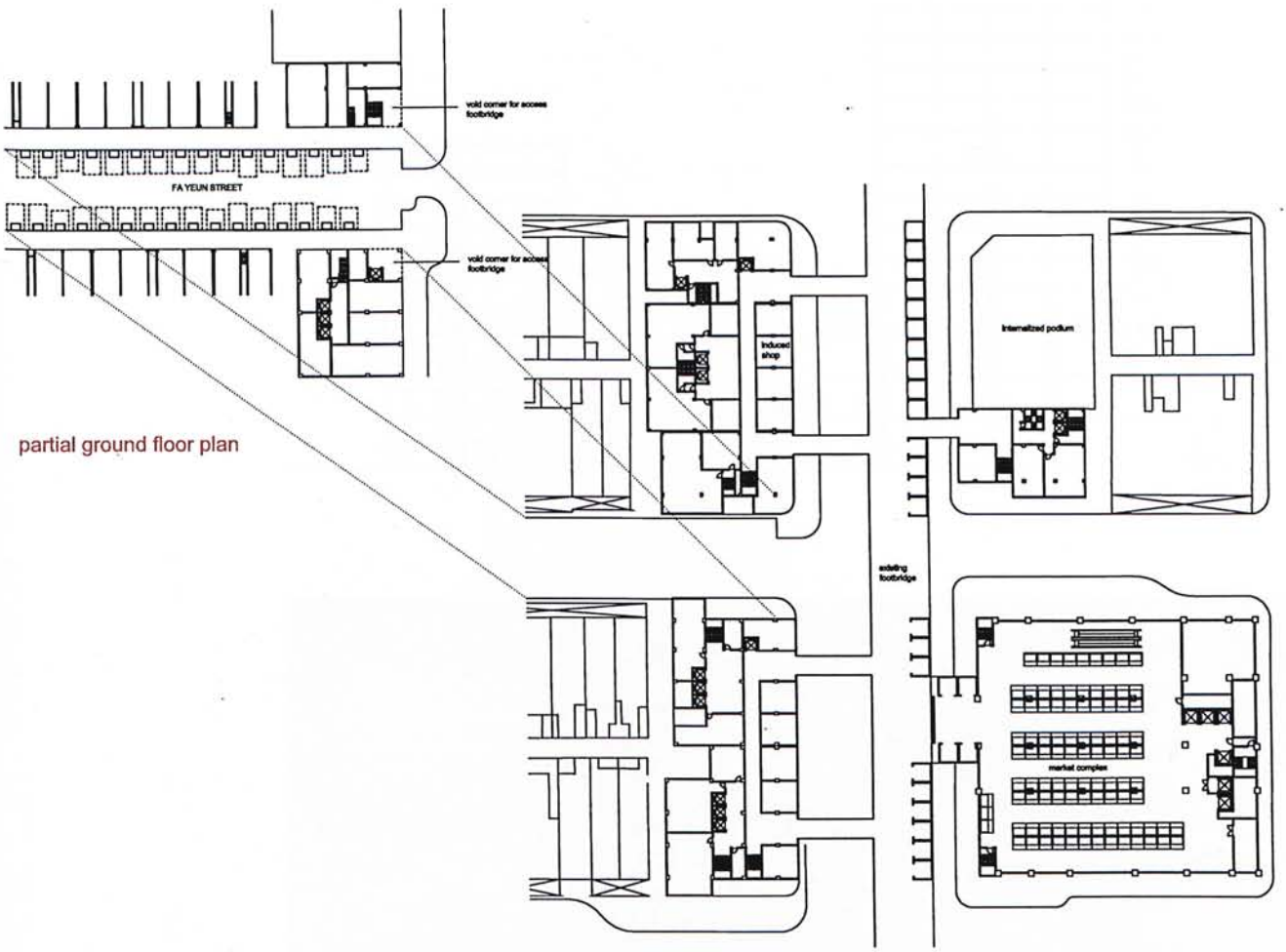
## strategy approach 4 - existing footbridge over Mong Kok Road

proposed at 2nd sem. mid-term review



**design strategy 2**
**- intervention of footbridge**

floor plan at footbridge level



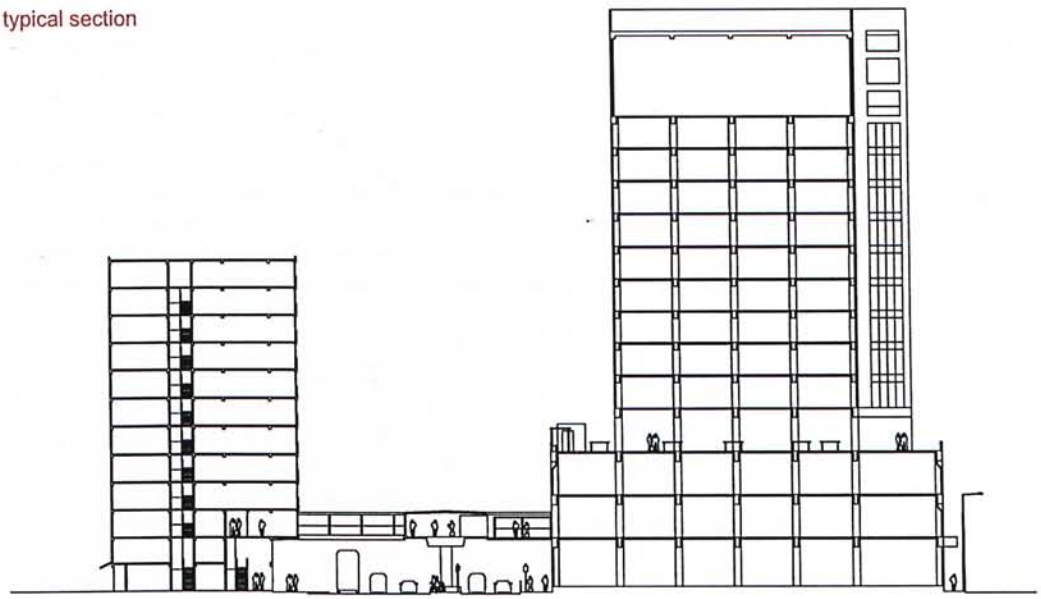

partial ground floor plan

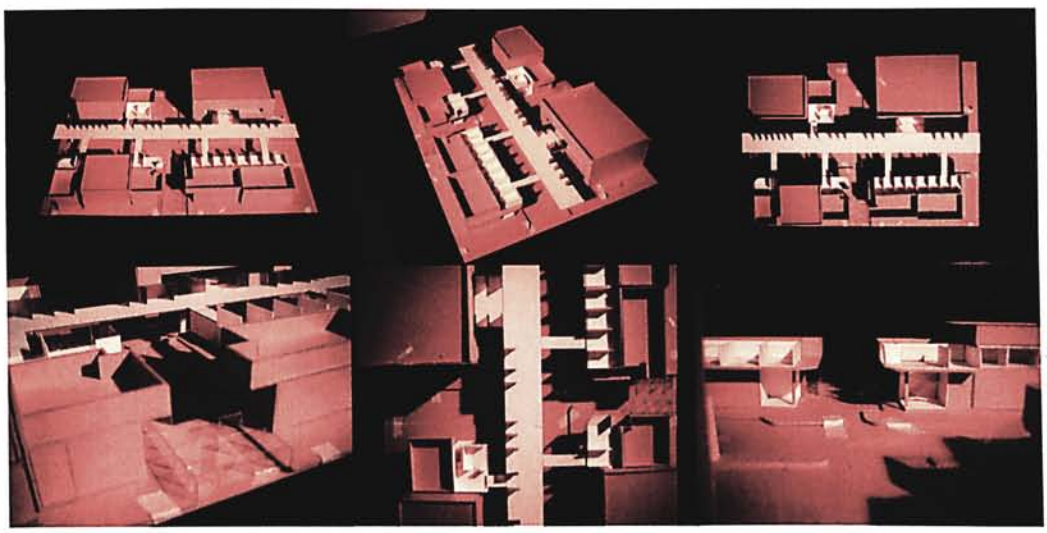
## strategy approach 4 - existing footbridge over Mong Kok Road
proposed at 2nd sem. mid-term review



**design strategy 2**
**- intervention of footbridge**

typical section





from left to right, photo:
proposed design model 1:200
for the intervened footbridge

## strategy approach 4 - existing footbridge over Mong Kok Road

proposed at 2nd sem. mid-term review



**examination**

***1. too much commercial***

- after the mid-term review, it is comment that the commercial happenings is over jam in Mong Kok, it is too much to intervene the footbridge into a commercial street
- there is an opportunity to change the position of "commercial street" into "urban oasis"

***2. open space (urban plaza) is appropriated for the intervened FEHD***

- after the massing / design studies, the most appropriate spatial form of the intervened FEHD is a large open space / an urban plaza. And the existing FEHD can be intervened to support the open space, which give a kind of new and old relationship.
- the open space / urban plaza can be used to receive the mass and provide a mass gathering place in Mong Kok which is lack in there.
- the nature of this open space / urban plaza is much matched with the "urban oasis" approach, which can provide a journery of resting from kcr station to Nathan Road.

***3. appropriate design scope and location***

- the location of the journery is appropriate in Mong Kok, as it is above the main traffic road and it have opportunity to create the route.
- within the design scope, the issues are clearly defined and valuable in each junction parts.

## strategy approach 5 - urban oasis over Mong Kok Road
final proposal



**position**

***1. urban relief***

Mongkok is a place of crowdness and conjestness. It is a place rich in content and context, full of controversies and disputes, make one excited and nervous. And the commercial activities is overmuch in there, there is no place for rest and stop.

Thus, the position of urban relief would be appplied on the thesis, the thesis attempts to demonstrate an alternative route in Mong Kok to reconnect KCR station and the city. With the contrast position to the existing commercial and conjested characters of Mong Kok, the route would be an urban oasis for people resting and escaping from the busy life.

from left to right, photo:
existing crowded and over commercial conditions in Mong Kok

***2. simple and contrasting strategy and landscape design approach***

In order to emphasis the condition of urban relief, the strategy would be in a simple way, which can give contrast to the chaos surrounding condition. Also the landscape design approach would be applied in the proposed route, so that a greenery jounery would be created.

left, photo: water element in landscape design
middle, photo: bamboo forrest in Mong Kok
right, photo: bamboo wall from chang yung ho

## strategy approach 5 - urban oasis over Mong Kok Road

final proposal



**position**

***3. focus on the junctions***

a) junction between the kcr station and the existing footbridge (including FEHD building)
b) typical intersection part of footbridge including the deteriorated tenement buildings
c) ending part of the footbridge facing Nathan Road

***3. respecting the existing urban fabric (intervention approach)***

a) intervention of government building (FEHD) into an urban plaza

b) transform the existing footbridge into an elevated garden

Instead of being an elevated commercial street, under the urban relief, the footbridge would be intervened into an elevated garden for people resting and chating, which is not enough in Mong Kok.

c) intervention of 1/f and 2/f of existing buildings along Mong Kok Road

The upper floor would be induced to cultural shops (e.g. book cafe....) which provide a transition space before getting into a busy and commercial ground street.


left to right photo:
leisure and cultural activities in upper floor shop

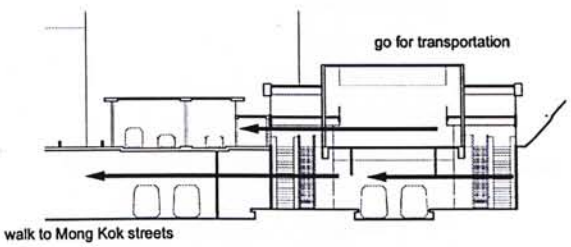
d) intervene the government building (TID) for terminated landing

***4. no distrubance on ground level street life***

final proposal

**design strategy**
**- overall planning**

beginning: station

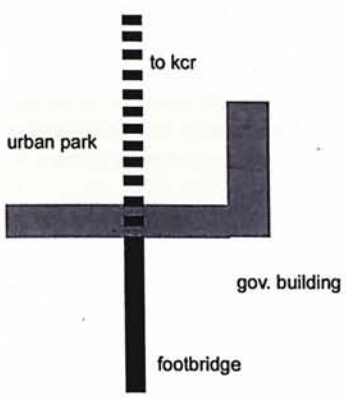



left: strategic diagram
of seperation of people and vehicle of station

right top photo:
existing small station entrance
right bottom photo:
transportation dominant at station podium

- improve the entrance hall environment
- seperation of people and vehicles

junction: FEHD building




left diagram:
strategic diagram of junction part of FEHD

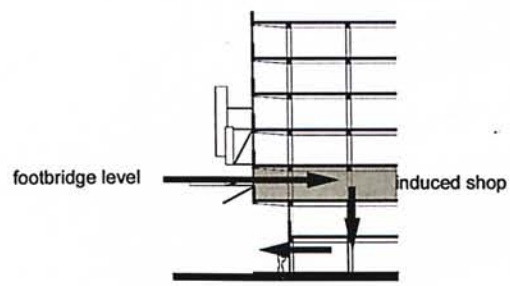
right top photo:
existing FEHD builing with carpark dominant
right bottom photo:
existing termination of footbridge in front of FEHD

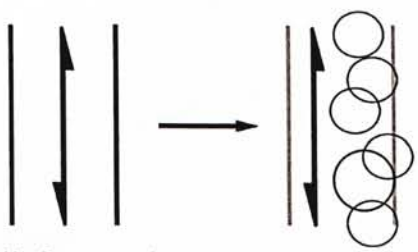
- intervene the building into urban building with urban park
- extend (connect) to the FEHD building

final proposal

**design strategy**
**- overall planning**

middle part: footbridge



extg footbridge for express only

transform to bamboo path
with resting area

left top: strategic diagram of landing through buildings
left bottom: diagram of footbridge transformation

right top photo: exiting footbridge, only expressway
right middle photo: discontinous of ground street activities
right bottom photo: destructive to other buildings

- transform the footbridge to bamboo path with resting areas
- removal of existing landing stair to allow smooth ground activities
- landing through the buildings and induced the floor to cultural shops

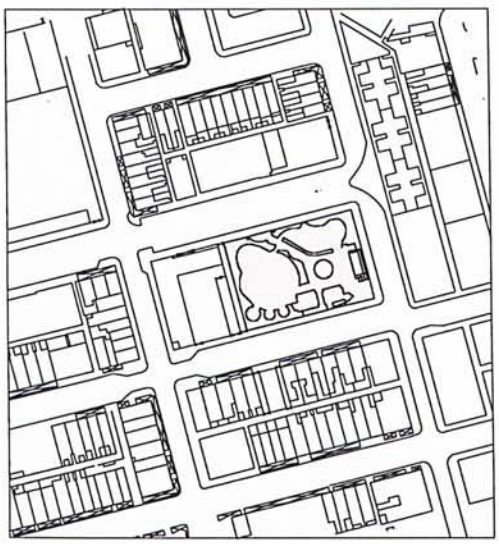
ending: termination

right photo: existing ending conddition

- terminate with the existing TID building next to MTR entrance

## 6.3 open space studies fa yuen street garden





site plan

photo,
]create an urban space in crowded area

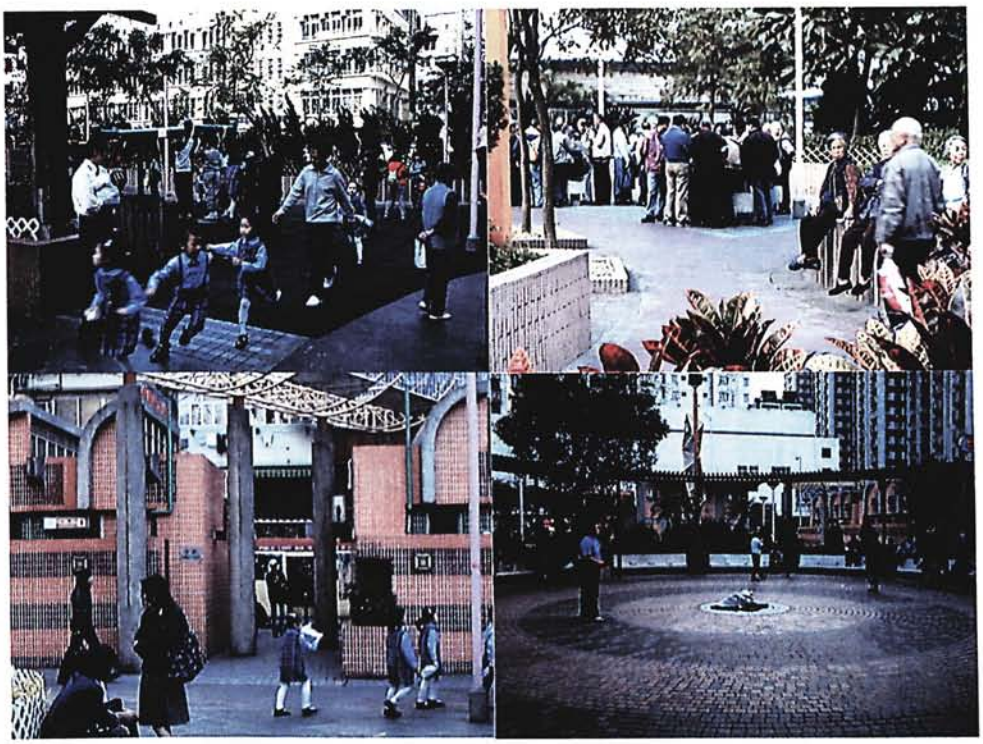
**general**

location: Mong Kok, Fa Yuen Street South
area: 2300 sqm
facilities: public toilet, childern playground, resting area, transformer room
environment: - three sides facing road and one side facing school
- building blocks surrounded

## 6.3 open space studies fa yuen street garden

6.3.1

activities photo



**activities**

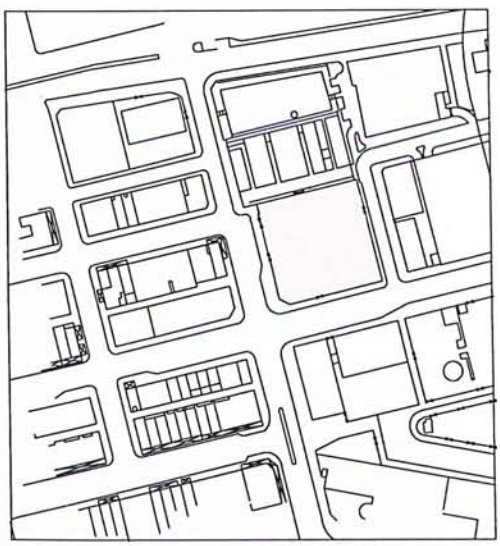
- childern play
- waiting people / for toilet
- sitting, chatting
- playing chess
- some exercise

**characteristic**

- important for the urban open space for rest in crowded and polluted area
- urban facility (public toilet play an important role)
- crowded at daytime
- no identities for the rest garden

## 6.3 open space studies yau ma tei community centre rest garden





site plan

**general**

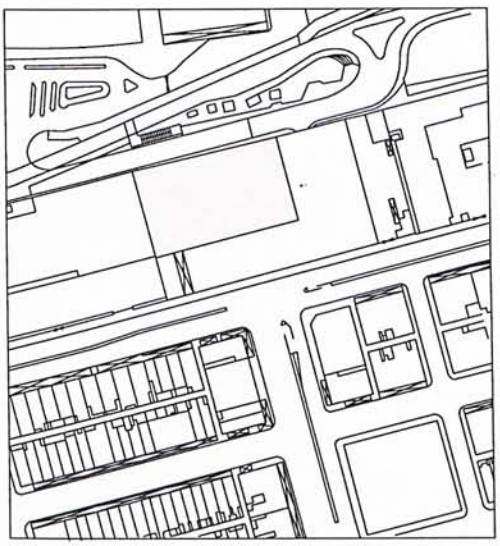
location: Yau Ma Tei, Yau Ma Tei Community Centre Rest Garden
area: 2650 sqm
facilities: sitting area and trees
environment: - three sides facing road and one side facing Tin Hau temple
- building blocks surrounded

## 6.3 open space studies yau ma tei community centre rest garden




**activities**
- childern play
- waiting people
- sitting, chatting
- playing chess
- commercial activities (flea market)

**characteristic**
- Tin Hau Temple play an important role of the plaza, assign a character to the plaza
- identities generate from the flea market and the fortune telling
- important for the urban open space for rest in crowded and polluted area
- community place for the whole district
- crowded both at daytime and night time



site plan

photo,
]create an urban space in crowded area

**general**

location: Mong Kok, Sai Yee Street, FEHD building
area: 3020 sqm
facilities: car park and loading area and public toilet
environment: - three sides facing road and one side facing school
- building blocks surrounded

## 6.3 open space studies proposed open space



**activities**
- car washing
- car parking

**characteristic**
- the whole area is used for vehicle
- no activities and character
- immediately facing kcrc station
- no public both at daytime and night time

**exploration**
- open space is suitable for the proposed design in this crowded area
- character of the open space should be defined and which also need to reflect the image of Mong Kok
- community used
- should be ready for daytime and night time

## 6.3 open space studies landform studies for the proposed outdoor activities 6.3.4

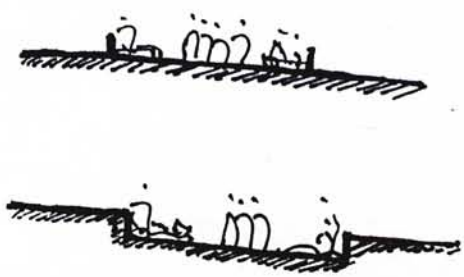
**general**

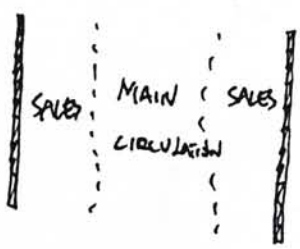
As the design is dominated by the open space (plaza), thus the expression of the open space (plaza) is very important. The design approach is making use of the building roof to create an urban space (plaza). Design method is to transform the landform (roof) to house different kind of activities.

1. flea market
2. food bazzar
3. outdoor performance space (large scale)
4. tv / film showing
5. open forum (small scale)

**flea market**

- freely happen
- no permanent set up
- low rise back support
- no definite boundary
- e.g. cattle depot artist village



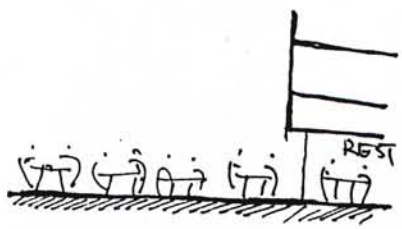


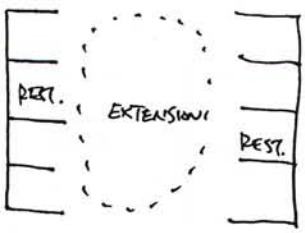

section diagram (left)
plan diagram (right)

## 5.3 open space studies landform studies for the proposed outdoor activities 6.3.4

**food bazzar**

- permanent set up for restaurant
- extension of sitting area to outdoor
- flat surface
- e.g.



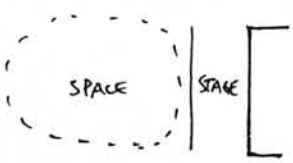



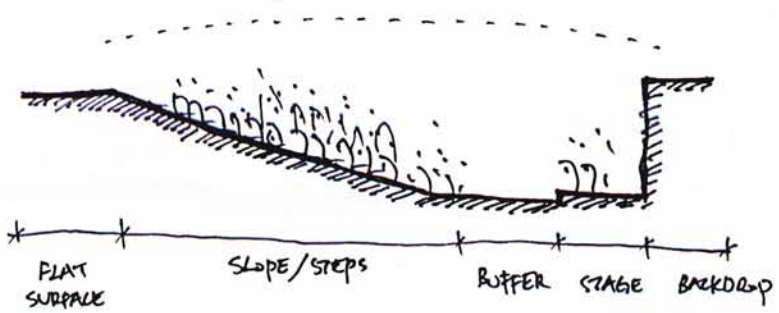


section diagram (left)
plan diagram (right)

**outdoor performance space**

- multi-function: chinese opera, music concert, film showing, mass dancing, drama
- steps / slope dominant
- can be covered
- large land profile
- e.g. shatin central park



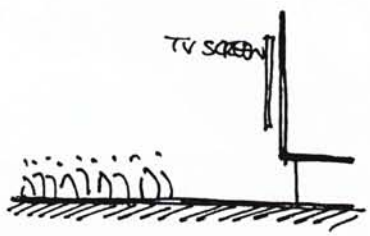



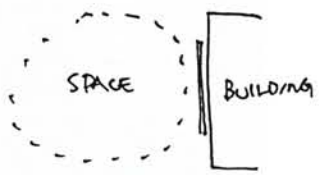

section diagram (left)
plan diagram (right)

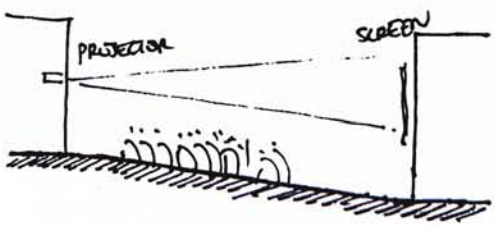
## 6.3 open space studies landform studies for the proposed outdoor activities 6.3.4

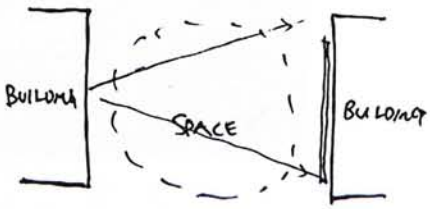
**tv / film showing**

- tv screen lie on the building facade
- very gentle slope / flat land
- e.g. temple bar / olympic city 2 / time square



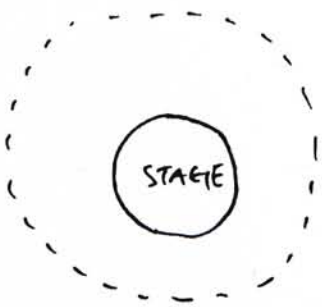




section diagram (left)
plan diagram (right)

**open forum**

- low rise stage
- open for surrounding
- small scale

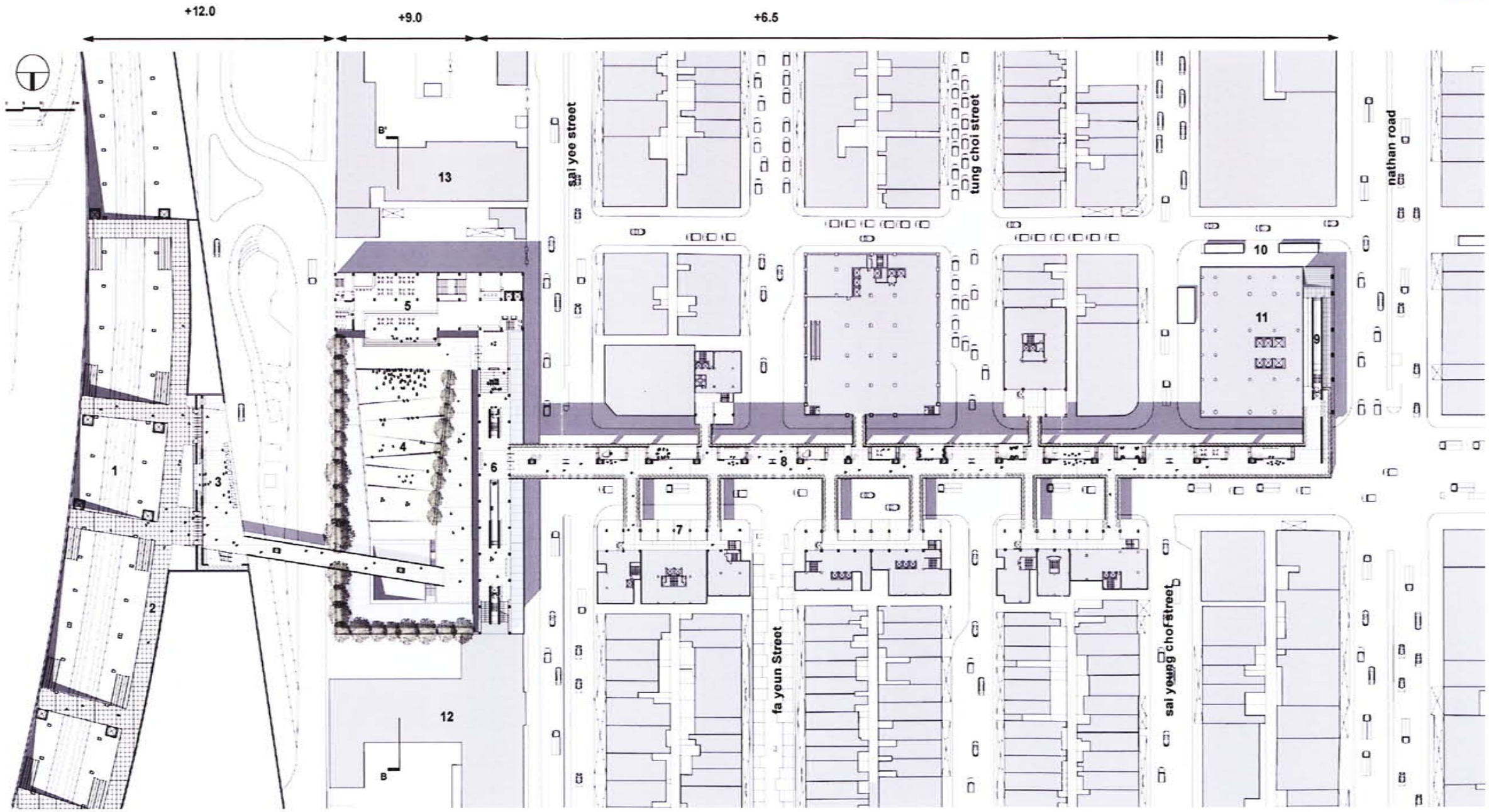



section diagram (left)
plan diagram (right)


design process

design drawings and details

site plan



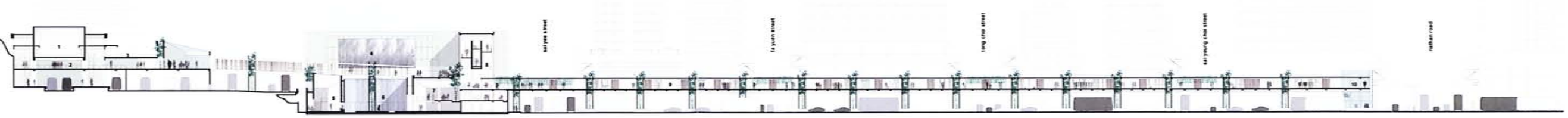

proposed program

1. rail line under
2. new mid-level platform
3. new concourse hall
4. urban park
5. lobby floor of cultural building
6. circulation building with city exhibition
7. induced cultural shop
8. new bamboo path
9. circulation building with shops
10. MTR entrances
11. TID government building

site section along the route

proposed program

1. existing station
2. new mid level platform
3. new concourse station hall
4. tv screen
5. winter garden
6. courtyard with water wall
7. gallery area
8. circulation building
   with city exhibition
9. new footbridge (bamboo path)
10. termination building



**design method** a) enclosure treatment: bamboo wall

Bamboo wall: 2 layer of enclosures with live bamboo planting in between.

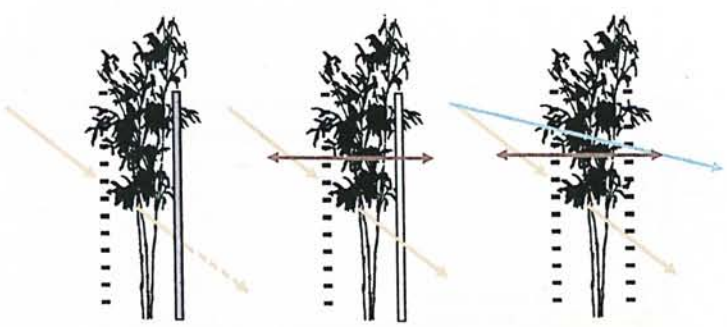
The thick wall can adjust the noise, ventilation and lighting effect along the route according to different situations. Thus the urban releif is achieved by creating spaces (environment) for people stop and rest.

left:
variation of thick wall diagrams

both solid
noise seperation

louver , solid
noise seperation
cast shadow

left:
variation of thick wall diagrams



louver, translucent
noise seperation
cast shadow

louver, glass
noise seperation
light penetrate
visual connection

both louver
visual connection
light penetrate
ventilation

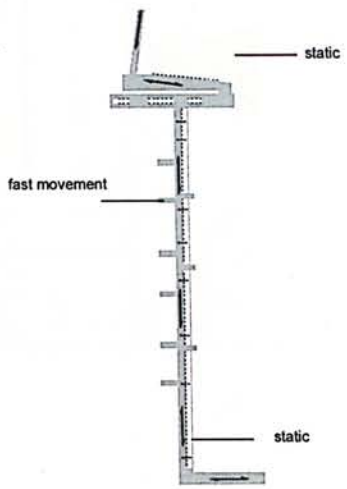
**design method**

b) fast and static

- seperated by some wall of bamboo which allow easy penetration and access
- loose boundary between the two realms


c) bamboo boundary

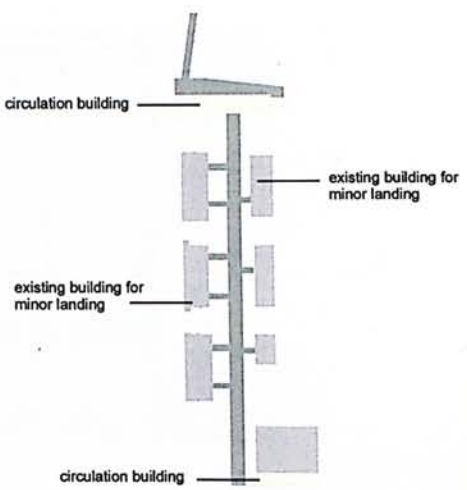
- two green space are defined by bamboo trees: urban park and bamboo path




left:
strategic diagrams

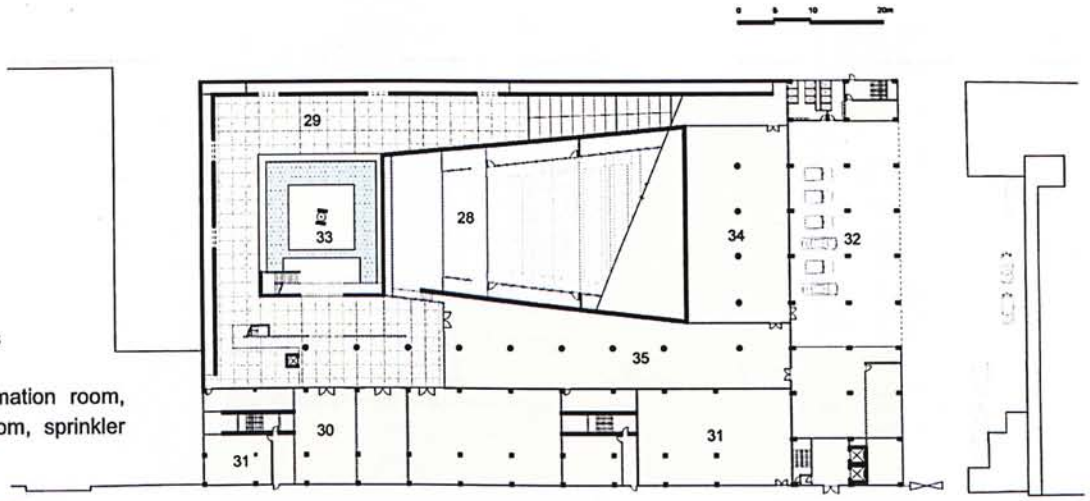
d) circulation through building

- 2 major circulation building for important junctions
- subtract a part of building for minor vertical circulation




left:
strategic diagrams

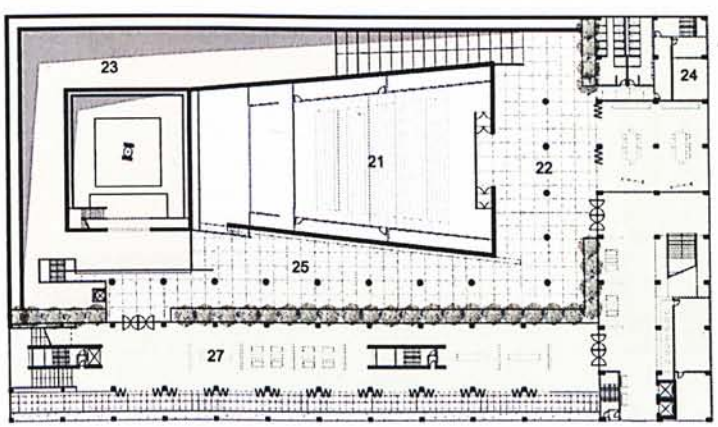
**=0m building plan**




proposed programs

28. theatre stage
29. winter garden
30. activities room / studios
31. services:
(plumbing room, transformation room, water tanks, electrical room, sprinkler room , AHU)
32. loading area
33. courtyard with water pond
34. storage
35 perparation room

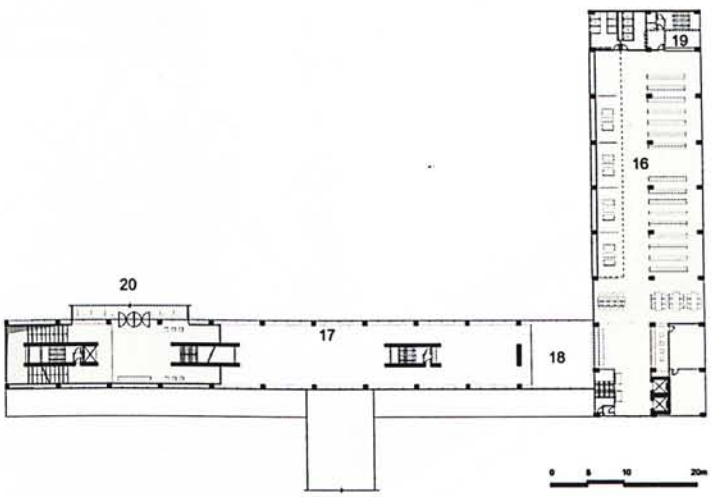
**=3m building plan**




proposed programs

21. theatre
22. theatre foyer
23. void
24. services
(electrical room, AHU, sprinkler room)
25. exhibition area
26. ticket office
27. tea house / sou venir

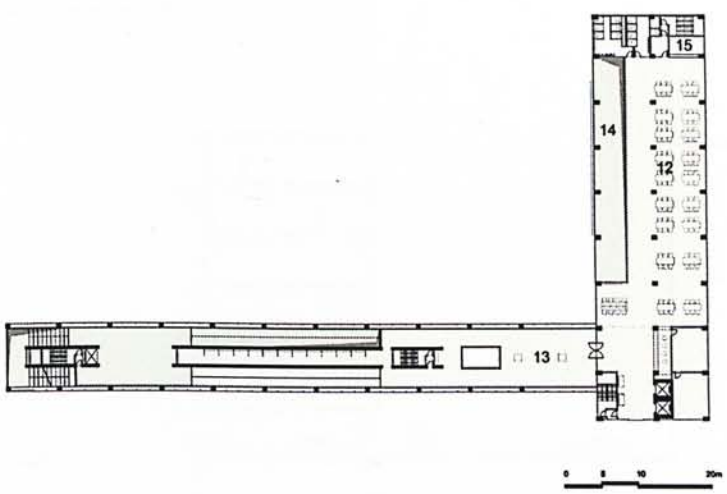
**=9m building plan**




proposed programs

16. library
(childern section and periodical section)
17. circulation building
with city exhibition
18. void
19. services
(electrical room, AHU, sprinkler room)
20. to urban park

**=15m building plan**

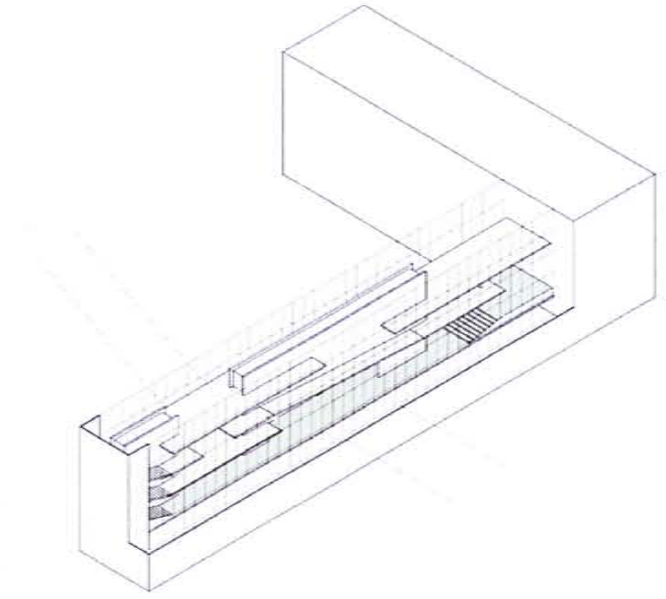


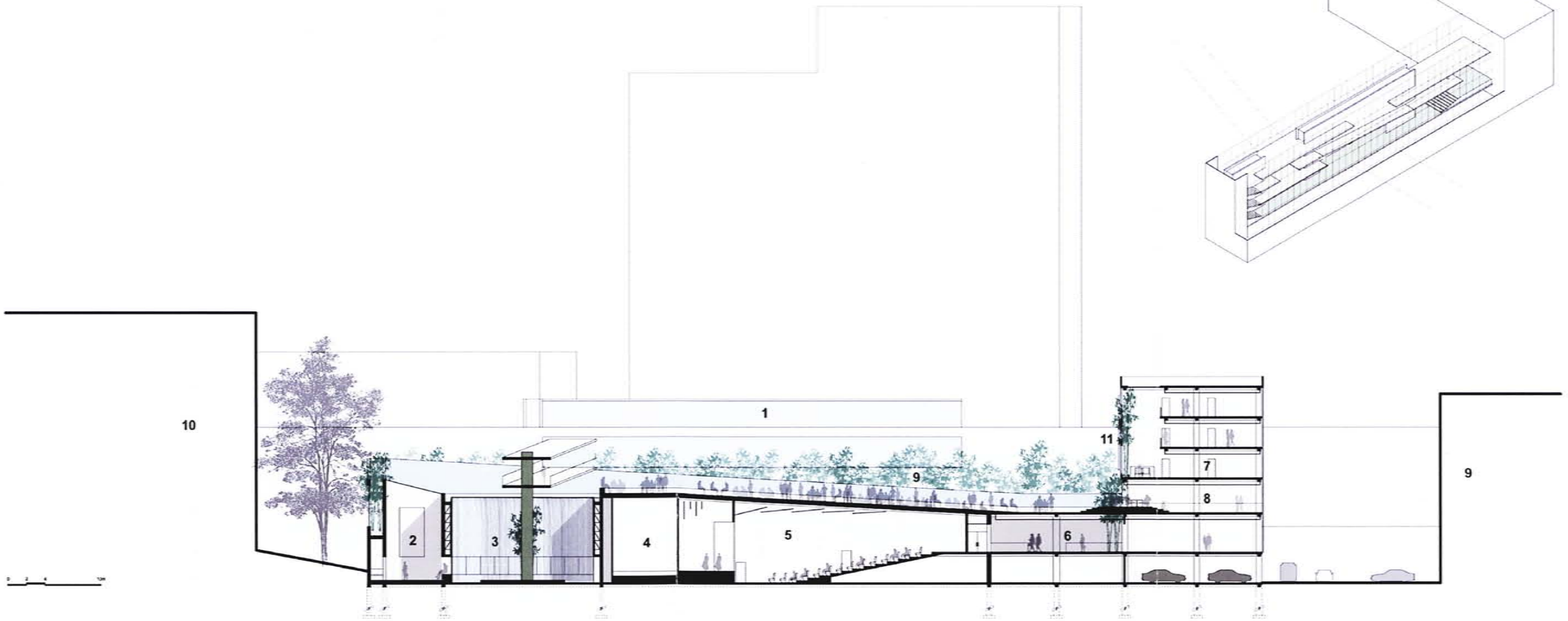

proposed programs

12. library (public study room)
13. city exhibition and waiting area
14. void
15. services
(electrical room, AHU, sprinkler room)

**building section and circulation diagram**

axonometric of circultion building
With retaining the structure of the existing building, a wraping circulation is inserted into the building for slow movement with city exhibition. A short cut also provide for fast movement






proposed program

1. new station entrance hall skylight
2. winter garden
3. courtyard with water wall
4. back stage
5. theatre
6. theatre foyer
7. library
8. lobby floor of cultural building
9. existing WSD building
10. existing school
11. movie screen

**perspectives**

a) new concourse hall of station viewing urban park

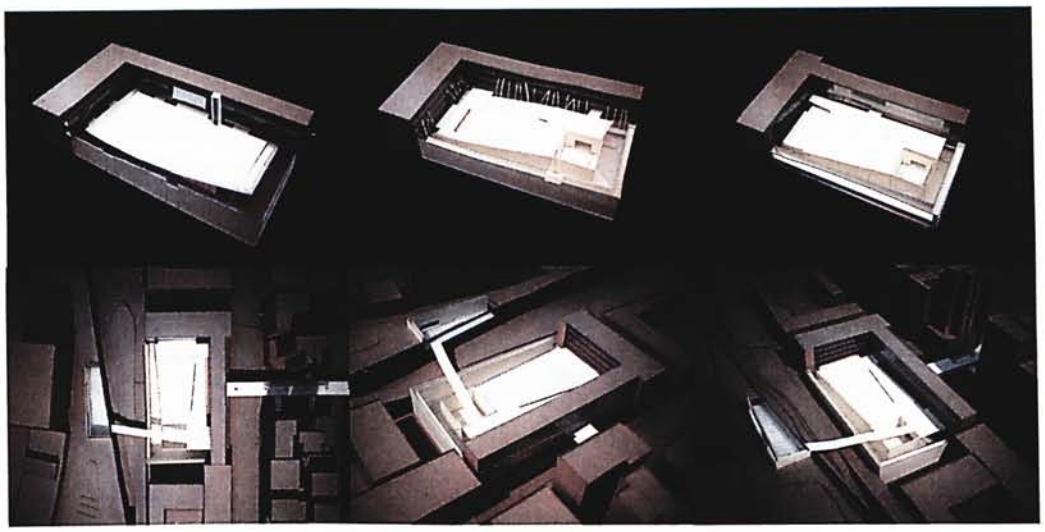
b) viewing step down urban park

**perspectives**

c) circulation building

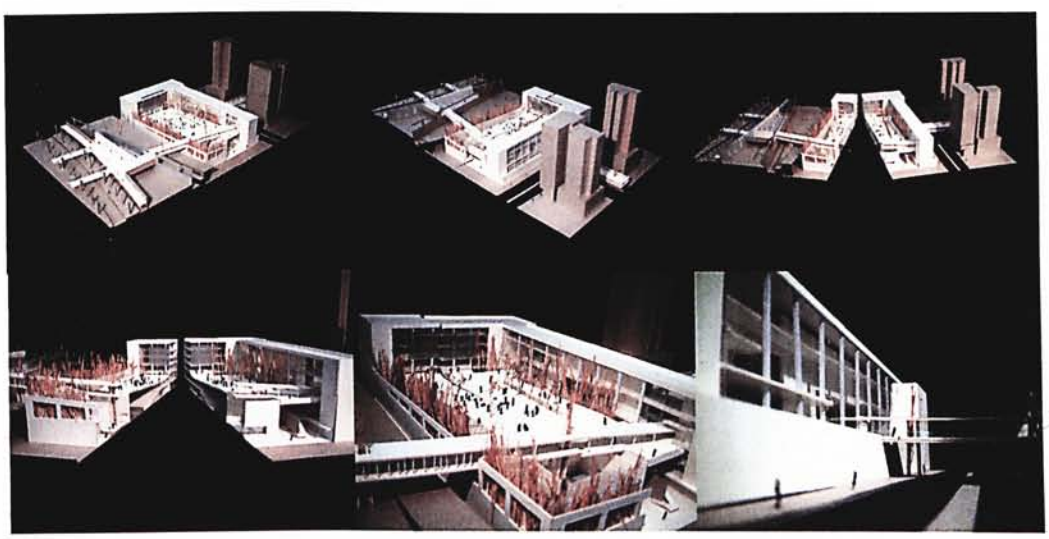
c) view in winter garden

**model photos**



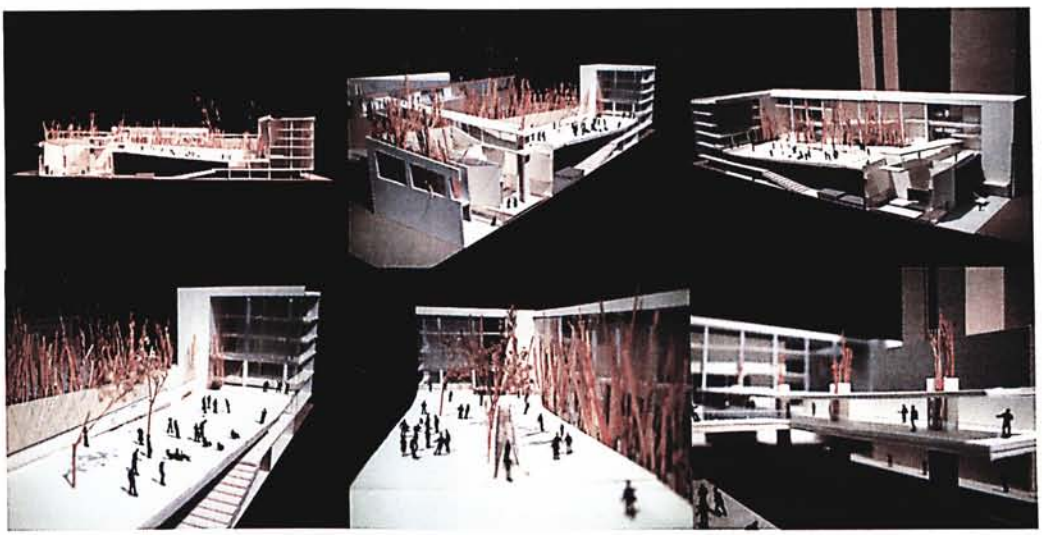
left to right:
1:500 study model

left to right:
1:500 final model

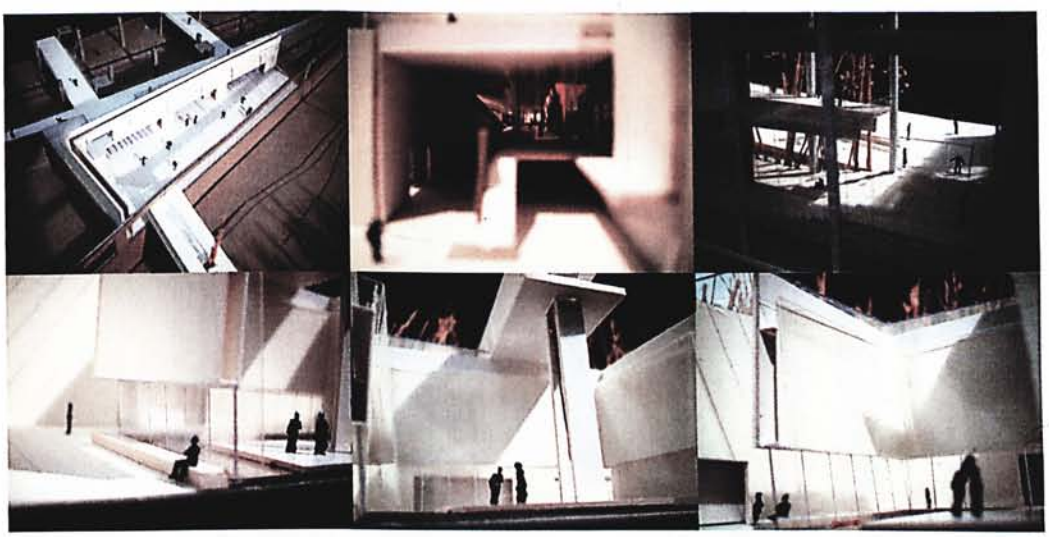


left to right:
1:200 final model of intervened building

**model photos**



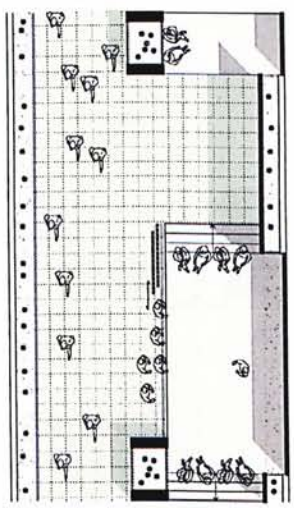
left to right:
1:200 final model of intervened building

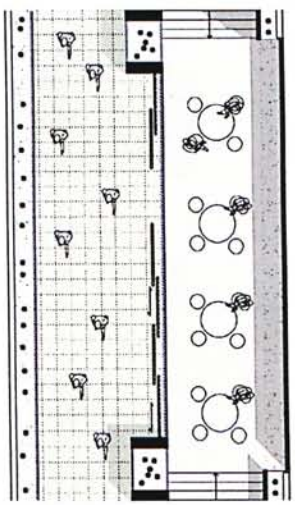


left to right:
interior views of
final model of intervened building

**variation of footbridge plans**

activities diagrams - sunken area - more privacy

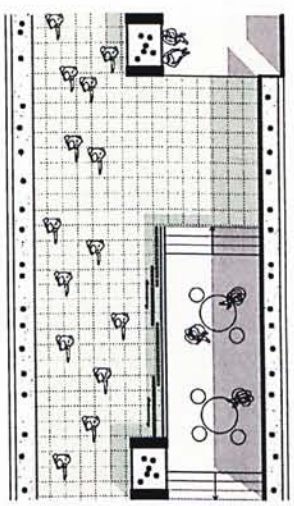


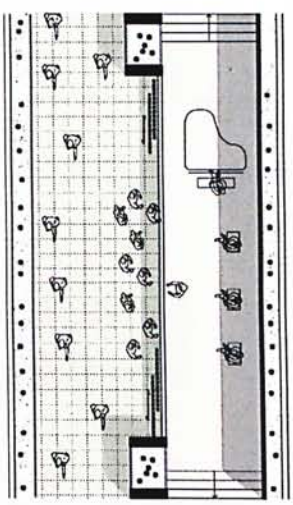


different type of spaces
small: 1-2 ppl
medium: 3-6 ppl
large: 7-10 ppl

different type of actvities
small: chatting / resting
medium: internal performance
large: tea house

activities diagrams - raised platform - more public



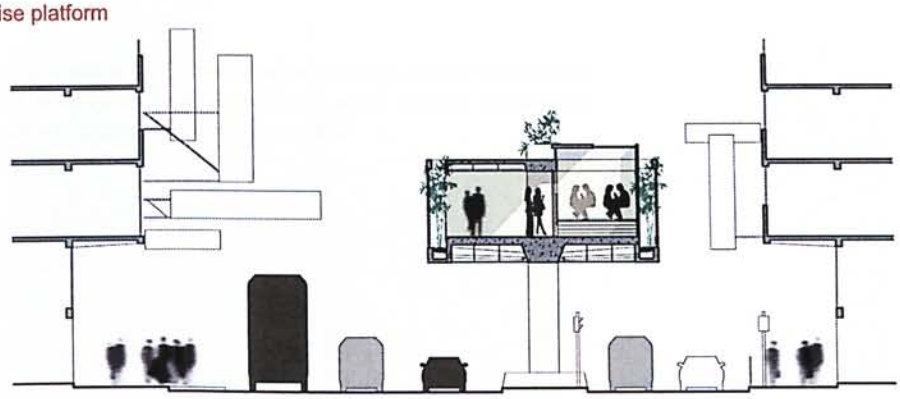


different type of spaces
small: 1-2 ppl
medium: 3-6 ppl
large: 7-10 ppl

different type of actvities
small: chatting / resting
medium: group meeting , tea time
large: music performance , open forum

**variation of footbridge sections**

section with raise platform



section with sunken areay

section at intersection street junction

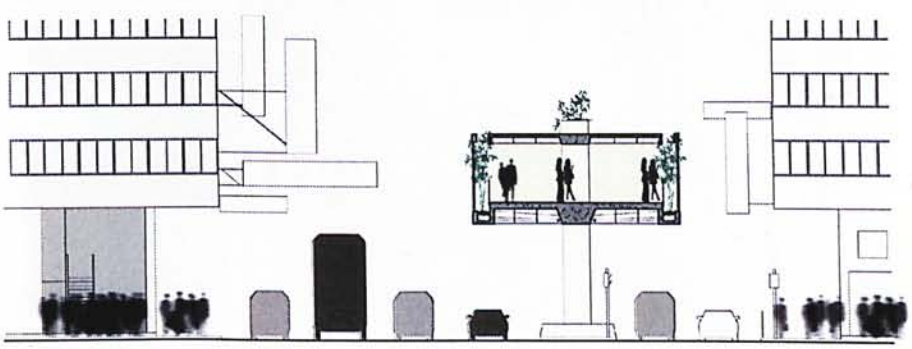
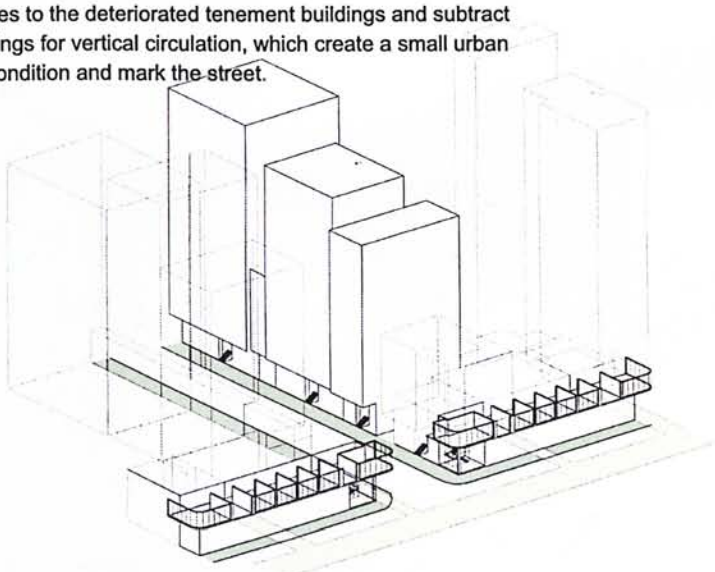


**diagram** axonometric of new landing

By adding smalll bridges to the deteriorated tenement buildings and subtract the corner of the buildings for vertical circulation, which create a small urban space for the corner condition and mark the street.

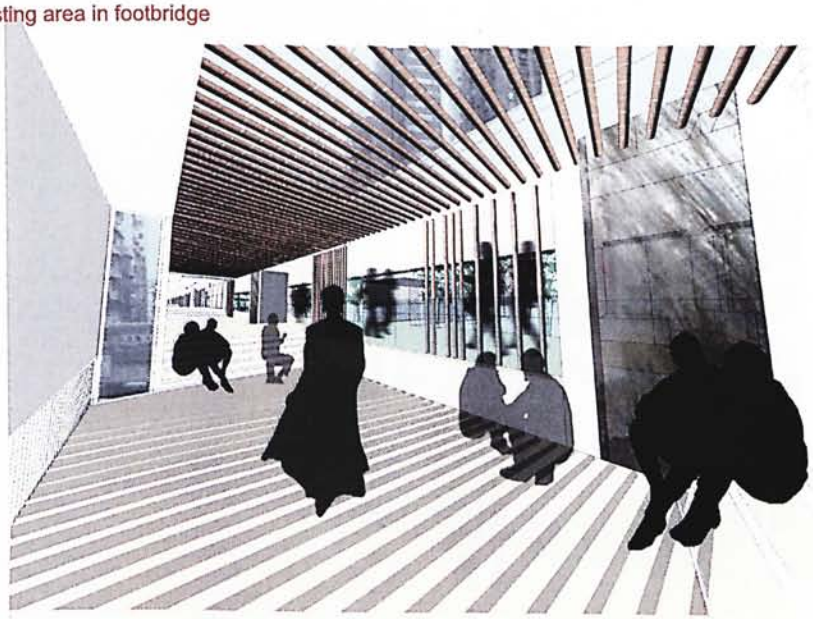


**perspectives** e) view at footbr

**perspectives**

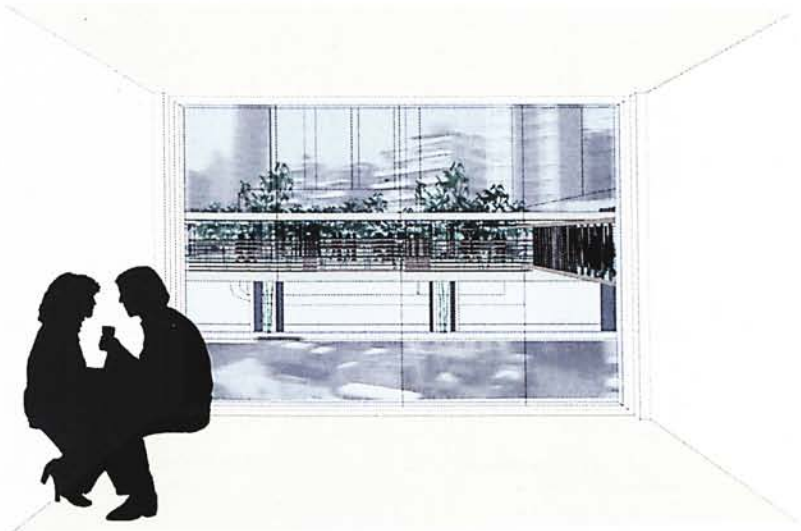
f) raised platform in footbridge

g) sunken resting area in footbridge

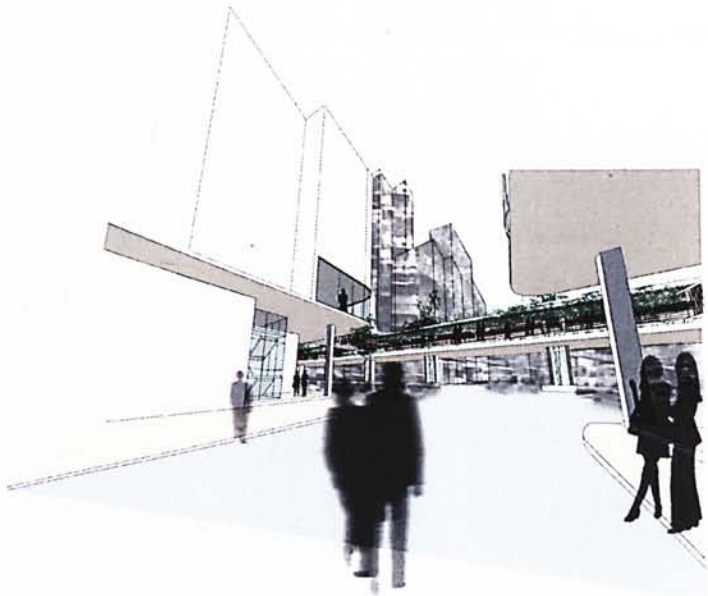


**perspectives**

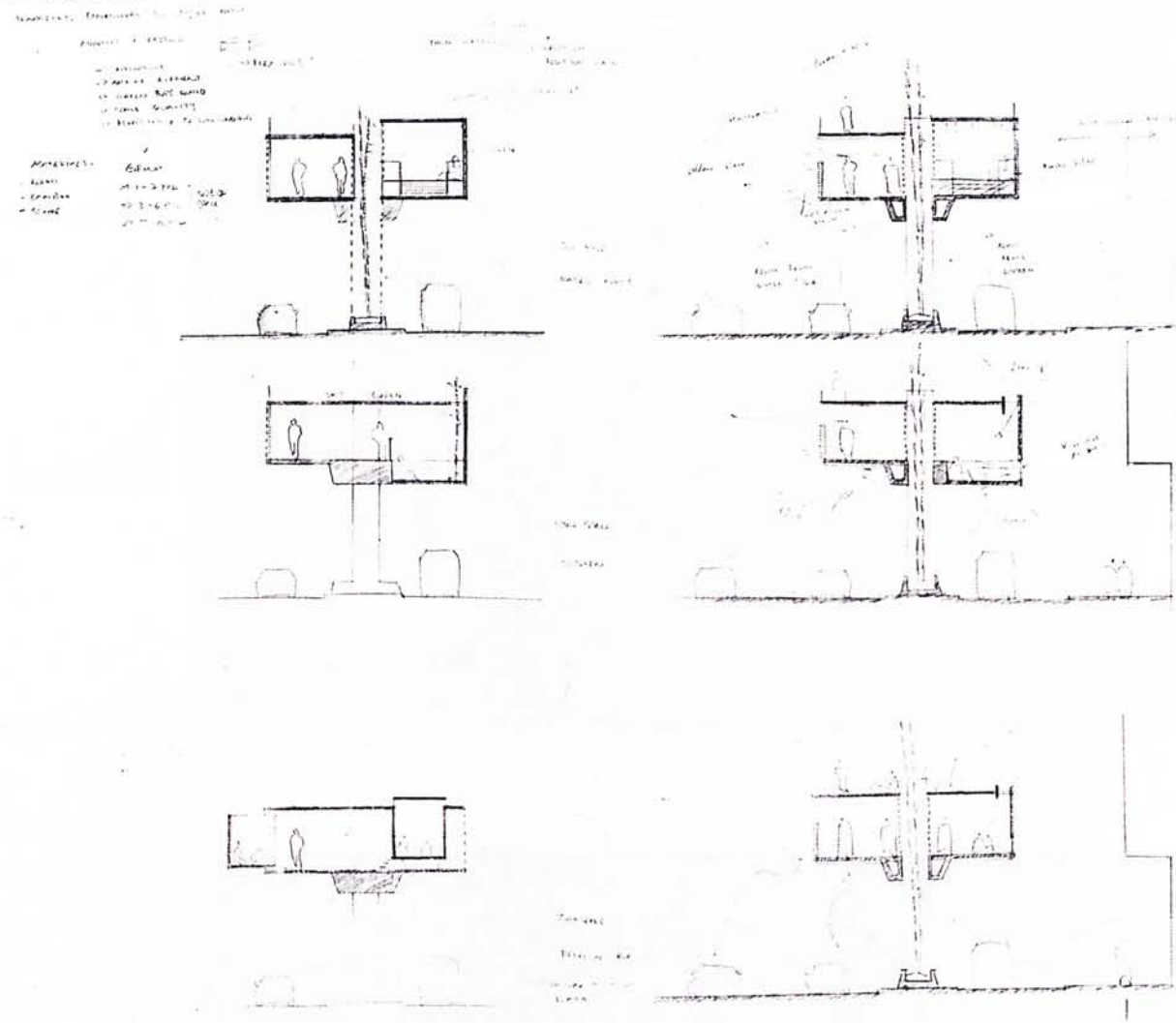
h) view from upper floor shop



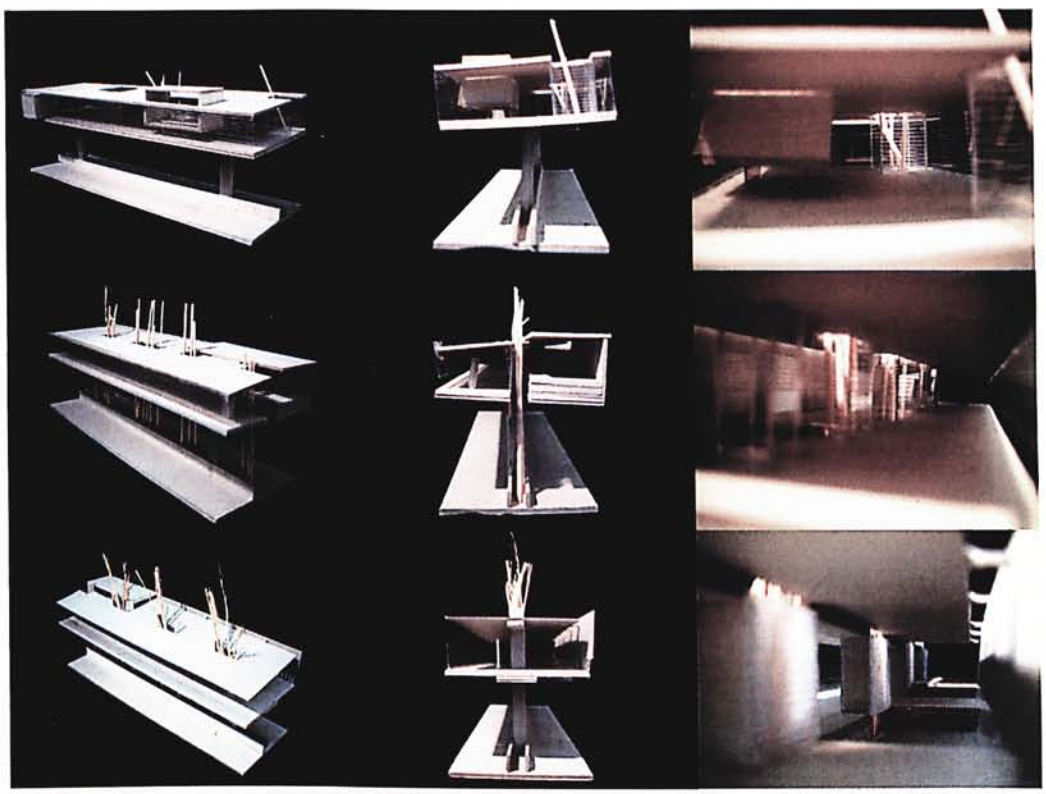
i) view from typical street



working studies



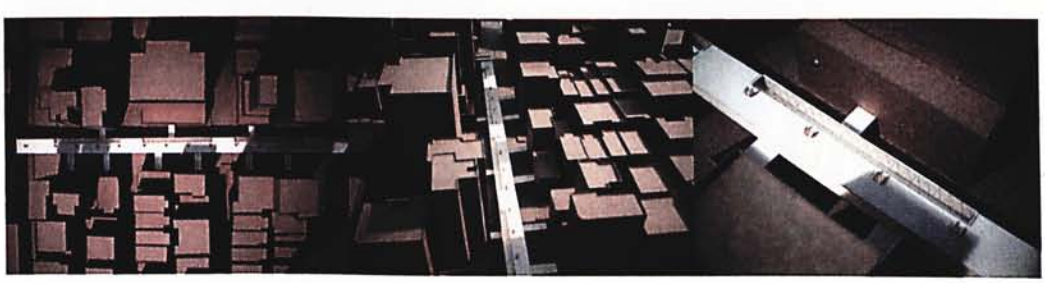
**model photos**



left to right:
1:100 study model (option 1)

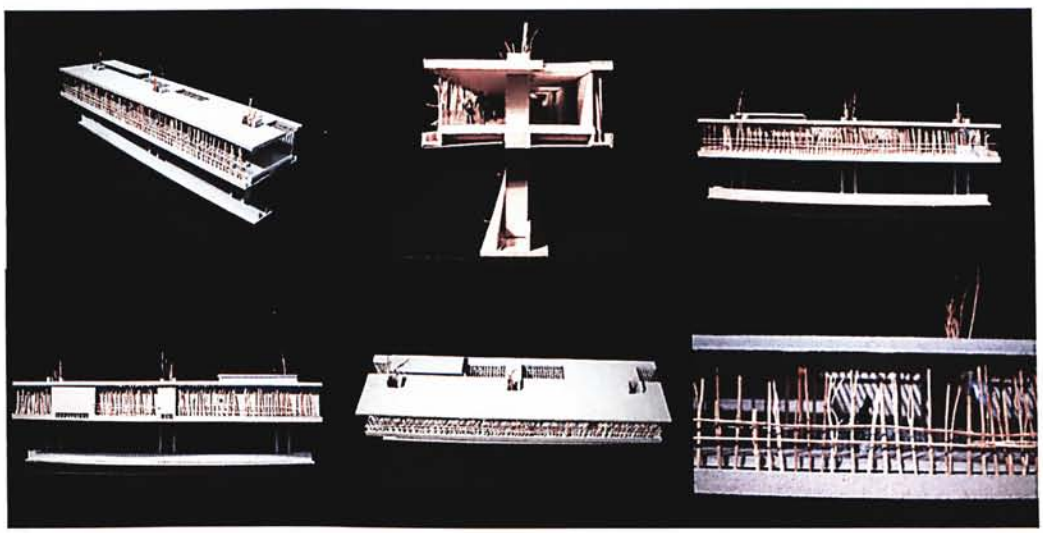
left to right:
1:100 study model (option 2)

left to right:
1:100 study model (option 3)

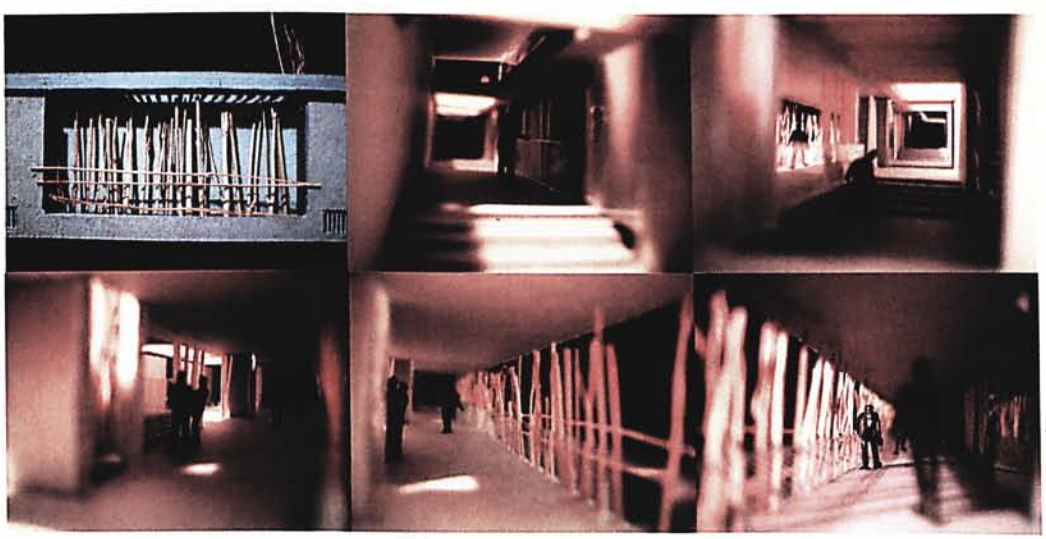


left to right:
1:500 final model

**model photos**



left to right:
1:100 final model of intervened footbridge
(bamboo path)

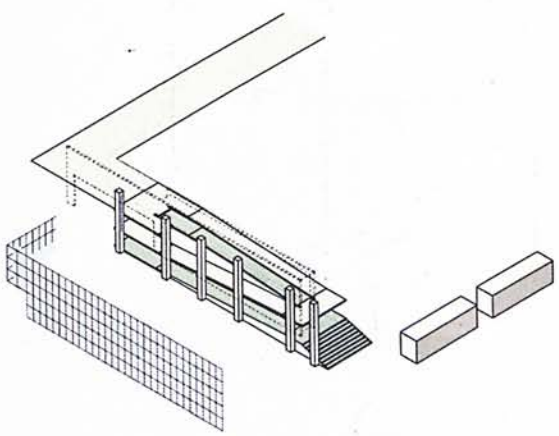


left to right:
interior views of
final model of intervened footbridge

## 7.1 final design ending: termination junction at Nathan Road 7.1.4

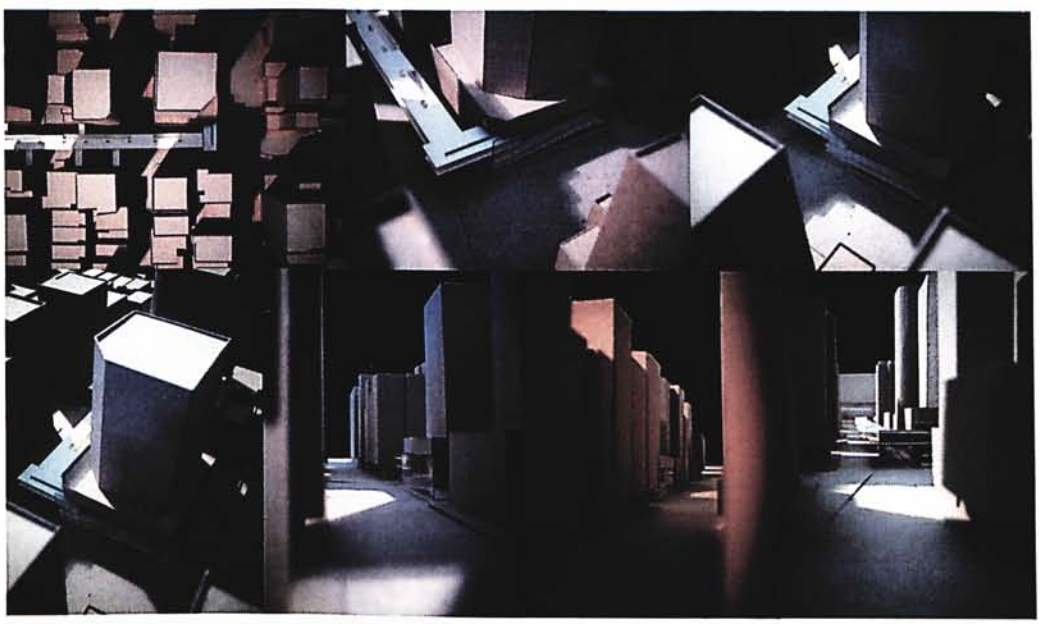
**diagram** axonometric of circultion building

With retaining the structure of the existing building, a wraping circulation is inserted into the building for slow movement with city exhibition. A short cut also provide for fast movement

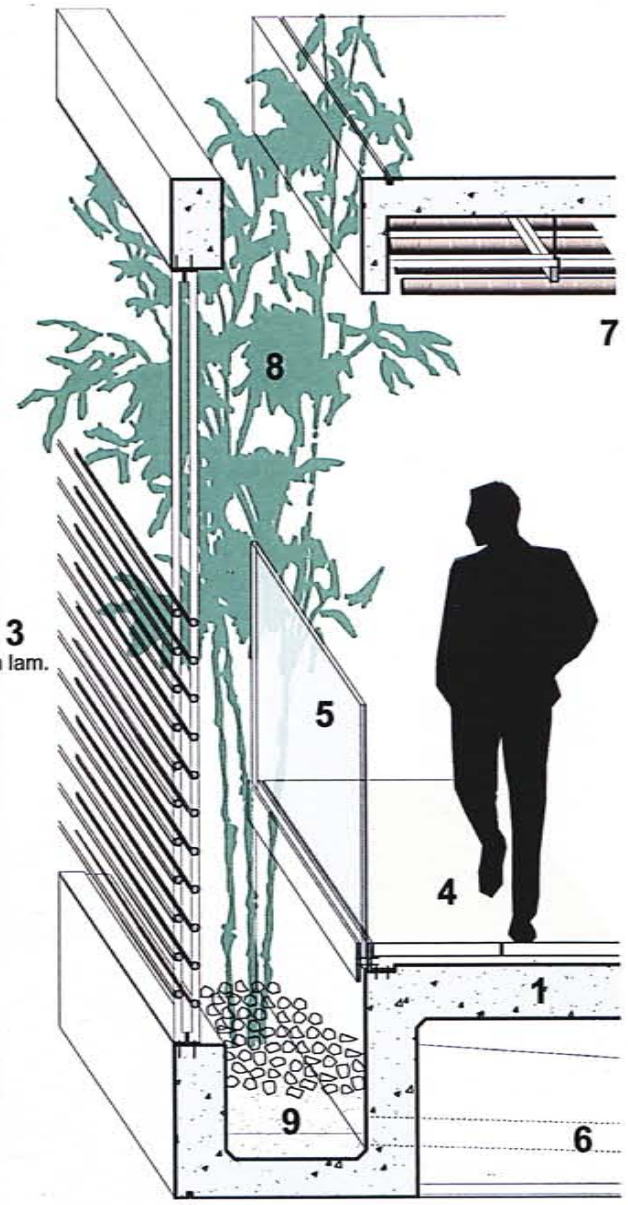


**perspectives** j) view from Nathan Road

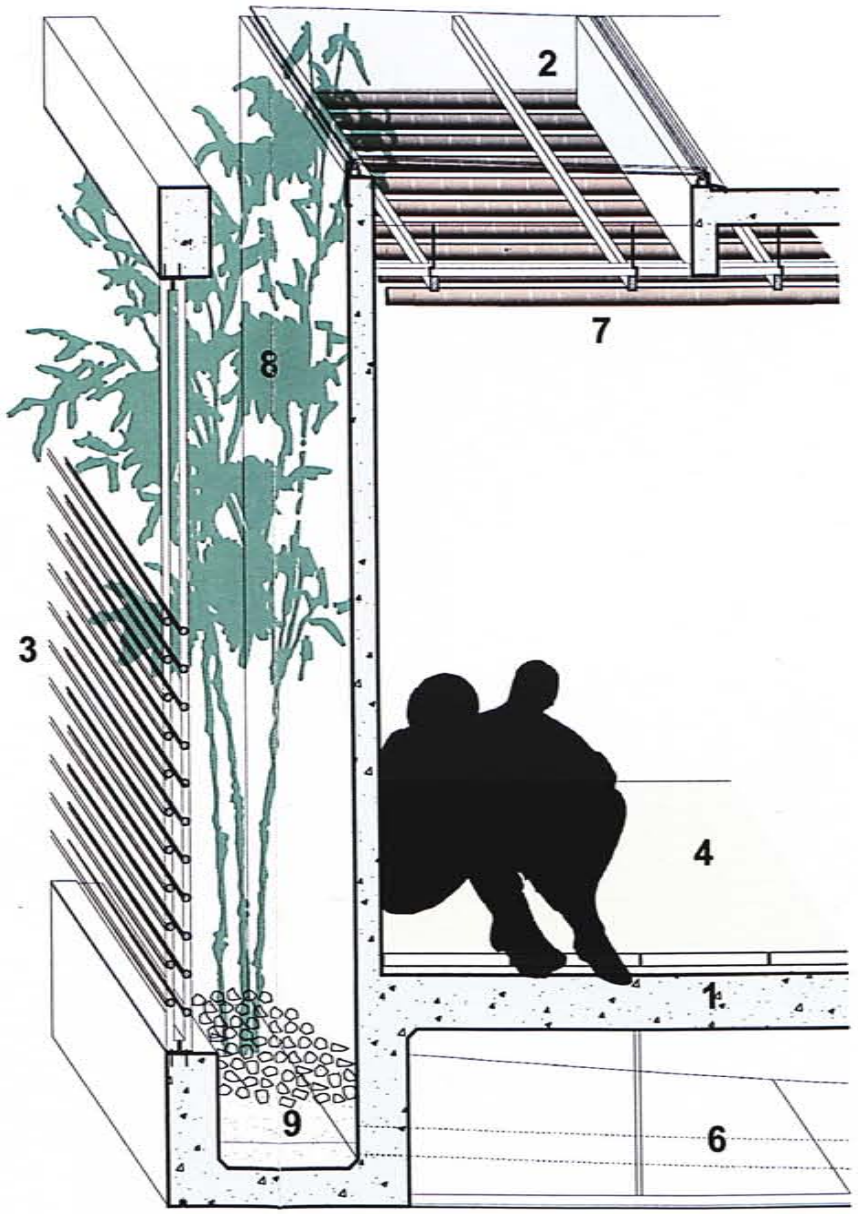
**model photos**



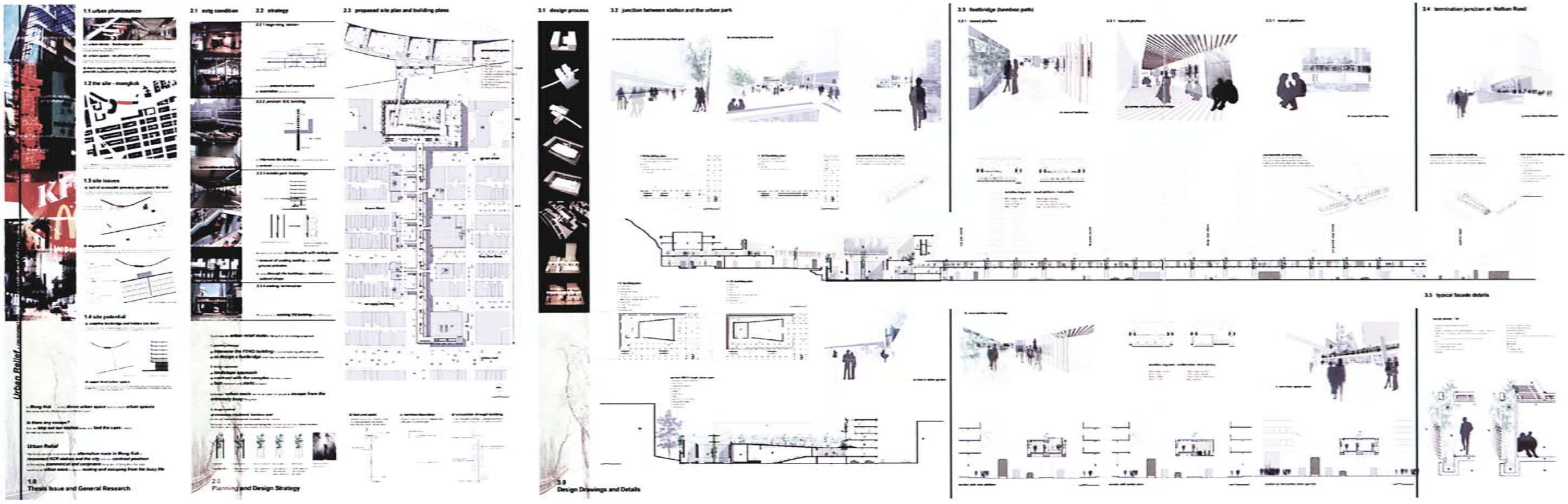
left to right:
1:500 final model of termination part




1. Exposed concrete with waterproof seal off
2. Skylight:
   stepped double glazing: 10mm toughened glass + 15mm cavity + 18mm lam.
   Safety glass, 1mm stainless-steel sheeting bituminous sealing layers
3. screen:
   2 x 30/30/3 mm galvanized steel frame with wooden stick infill
4. floor:
   25mm slate paving slab for walkway
   12 mm welded steel plants
5. 19 mm lam. Safety glass as handrails
6. drainage
7. false ceiling with lighting facilities:
   5mm stainless steel suspension
   30mm diameter bamboo
   80/35mm wooden bearer
   bamboo member mounted on steel framework for false ceiling
8. living bamboo
9. planting trough:
   planting layer
   filter mat
   100 drainage layer
   12 mm protective mat



## 7.2 final presentation final presentation panel



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| | | |
|---|---|---|
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| | 2. 旺角新行人天橋系統應付未來需求 | Hong Kong Government News Press |
| | 3. 城市應該是這樣建成的 | 胡恩威 |
| **projects** | 1. Ground Zero Competition | |
| | 2. Extension New York Art Meseum (MOMA) | Taniguchi |
| | 3. Visiting buildings | Taniguchi |
| | 4. Bamboo House | Kengo Kuma |
| | 5. Bamboo House | Chang Yung Ho |
| | 6. The city of bamboo | Chang Yung Ho |

## 9.0 appendix

thanks tc yuet

alfred yeung

ivan li

manfield lai

department of architecture, cuhk

yr 4 instructuors: tc yuet, bernard lim

yr out: michael ng, sophia wong, sindy, eric to

yr 3: gu daqing, leng woo

yr 2: bruce lonman, vito bertin

yr 1: luruent, andew li

my family

my classmates

my friends

me

.....

thats the 5 yrs life